



CONTRIBUTION, EXPLOITATION, AND MIGRATORY TIMING OF CHILKAT
AND CHILKOOT RIVER RUNS OF SOCKEYE SALMON (Oncorhynchus nerka
Walbaum) IN THE LYNN CANAL DRIFT GILLNET FISHERY OF 1984

By:
Scott A. McPherson

March 1987

ADF&G TECHNICAL DATA REPORTS

This series of reports is designed to facilitate prompt reporting of data from studies conducted by the Alaska Department of Fish and Game, especially studies which may be of direct and immediate interest to scientists of other agencies.

The primary purpose of these reports is presentation of data. Description of programs and data collection methods is included only to the extent required for interpretation of the data. Analysis is generally limited to that necessary for clarification of data collection methods and interpretation of the basic data. No attempt is made in these reports to present analysis of the data relative to its ultimate or intended use.

Data presented in these reports is intended to be final, however, some revisions may occasionally be necessary. Minor revision will be made via errata sheets. Major revisions will be made in the form of revised reports.

CONTRIBUTION, EXPLOITATION, AND MIGRATORY TIMING OF CHILKAT AND CHILKOOT RIVER
RUNS OF SOCKEYE SALMON (*Oncorhynchus nerka* Walbaum) IN THE
LYNN CANAL DRIFT GILLNET FISHERY OF 1984¹

By
Scott A. McPherson

Alaska Department of Fish and Game
Division of Commercial Fisheries
Stock Biology Group
Douglas, Alaska 99824

March 1987

¹ This investigation was partially financed by the Anadromous Fish Conservation Act (P.O. 89-304 as amended) under Project No. AFC-72.

TABLE OF CONTENTS

	<u>Page</u>
LIST OF FIGURES	i
LIST OF TABLES	ii
LIST OF APPENDICES	iii
ABSTRACT	iv
INTRODUCTION	1
METHODS	1
Numbers of Fish	1
Age, Sex, and Length	3
Blind Test	3
Mixed Stock Analysis	4
Mean Data of Arrival	4
RESULTS	4
Blind Test	4
Harvest	8
Escapement	8
Exploitation Rates	14
Size at Age by Sex and Stock	14
DISCUSSION	18
ACKNOWLEDGMENTS	20
LITERATURE CITED	21
APPENDICES	22

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Map of Lynn Canal showing the fishing district and sections (e.g., 15-C) and principal spawning and rearing areas	2
2. Photographs of typical scale patterns of sockeye salmon aged 1. - from Chilkoot and Chilkat escapements	6
3. Photographs of typical scale patterns of sockeye salmon aged 2. - from Chilkoot and Chilkat Lake escapements	7
4. The weekly proportion of the principal age classes and associated 95% confidence intervals of catch samples of Lynn Canal sockeye salmon, in total and by stock, 1984	11
5. The catch of Chilkoot and Chilkat River sockeye salmon in the Lynn Canal drift gillnet fishery, by statistical week, 1984	12
6. Escapement of sockeye salmon into Chilkat and Chilkoot Lakes by moving 3-day average, 1984	14
7. The weekly proportion of the principal age classes and associated 95% confidence intervals of escapement samples of Chilkat and Chilkoot Lake sockeye salmon, 1984	15
8. Cumulative proportion of catch by age of Chilkat River sockeye salmon in the Lynn Canal drift gillnet fishery, 1984	19

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Accuracy of visual classification by inspection of scale patterns for sockeye salmon of Chilkooot and Chilkat Lakes in 1984 as determined from a blind test procedure	5
2. Fishery openings, effort, and harvest of sockeye salmon in Lynn Canal (District 115) by date and statistical week, 1984	9
3. Catch, escapement, total run, and exploitation rates of Lynn Canal (District 115) sockeye salmon by age class and system, 1984	16
4. Mean length, standard error, and sample sizes by sex and age class of sockeye salmon from Lynn Canal catches and escapement, 1984	17

LIST OF APPENDICES

<u>Appendix Table</u>	<u>Page</u>
1. Numbers by age of sockeye salmon harvested in the Lynn Canal drift gillnet fishery, by period, 1984	23
2. Estimated contribution of Chilkat and Chilkoot River sockeye salmon to the drift gillnet catch in Lynn Canal, by statistical week, 1984	24
3. Age composition of Chilkoot River fish harvested in 1984, by statistical week and sex	25
4. Age composition of Chilkat River fish harvested in 1984, by statistical week and sex	28
5. Chilkat Lake weir counts of sockeye salmon and associated statistics, 1984	31
6. Chilkoot Lake weir counts of sockeye salmon and associated statistics, 1984	34
7. Age composition of the Chilkat Lake escapement, by statistical week and sex, 1984	36
8. Age composition of the Chilkoot Lake escapement, by statistical week and sex, 1984	39
9. Cumulative weekly proportion of Chilkat catches of sockeye salmon, by age and statistical week, 1984	42

ABSTRACT

Visual interpretation of circuli patterns on scales collected from sockeye salmon (*Oncorhynchus nerka* Walbaum) from spawning escapements and commercial catches in the Lynn Canal (District 115), gillnet fishery of Southeastern Alaska, provided the basis for estimating the catch for both the Chilkoot and Chilkat River stocks. The total run of sockeye salmon to Lynn Canal in 1984 was 550,059 fish, of which 334,373 (60.8%) were harvested and 215,686 escaped to spawn. The Chilkat River run contributed 217,850 fish of which 102,581 (47.1%) were harvested and 115,269 escaped to spawn. Chilkoot River, contributed 332,209 fish of which 231,792 (69.8%) were harvested and 100,417 escaped to spawn. The mean date of harvest of the two runs was similar; 31 July for Chilkoot and 4 August for Chilkat. The mean date of escapement was 24 July for the Chilkoot run and 2 September for Chilkat.

KEY WORDS: Scale pattern analysis, stock allocation, Chilkoot River, Chilkat River, Lynn Canal, sockeye salmon, total return, escapement, catch apportionment.

INTRODUCTION

The Lynn Canal (District 115) drift gillnet fishery operated in those waters of Southeastern Alaska north of Little Island (Figure 1). While all five species of Pacific salmon (*Oncorhynchus* sp.) are harvested, the fleet targets on sockeye salmon (*O. nerka*) from June through late August. Annual harvests have ranged between 18,388 and 369,311 sockeye salmon from 1970 to 1983, with an average annual harvest of 141,902 fish. The 1984 harvest of 334,373 was the second-highest harvest since 1970. Sockeye salmon harvested in Lynn Canal originate primarily from the Chilkoot and Chilkat River drainages. Previous studies (Bergander 1974, Marshall et al. 1982, McPherson et al. 1983, McPherson and Marshall, 1986) have shown that both stocks are present simultaneously in the fishery and that scale pattern analysis provides a method for estimating the contribution of each run to the catches.

Yearly escapements for the period 1976 to 1983 have averaged 82,842 fish to Chilkoot River and 81,555 to Chilkat Lake. The escapements in 1984 of 100,417 fish to Chilkoot River and 115,269 to Chilkat Lake were the second highest on record.

The purpose of this report is: (1) document the accuracy and precision of determining the stock of origin of sockeye salmon harvested in the fishery by visual inspection of freshwater growth zones as was done by McPherson and Marshall in 1986; (2) by combining escapement by stock and age with run specific harvest data, document basic population statistics for future use in evaluation of escapement goals and development of forecasts; and (3) provide estimates of migratory timing, and exploitation rates for each run.

METHODS

Numbers of Fish

I obtained the number of fish caught in District 115 from the State of Alaska's records of individual sales between fishermen and processors. Catch statistics used were current as of 23 May 1985. Subsequent catch tabulations might differ slightly from those presented as errors are detected and corrected. Catches are reported by fishing period and assigned to a statistical week¹.

Weir crews counted escapements into Chilkoot Lake and Chilkat Lake were counted through weirs (Figure 1). The Chilkoot River weir, located approximately 0.8 kilometers upstream of the rivermouth, was operated from 4 June through 12 September. Chilkat Lake weir, located at the lake's outlet

1 A statistical week, used to report catch figures in Alaska, begins at 12:01 AM each Sunday and ends the following Saturday at midnight. Weeks are numbered sequentially beginning with the first Sunday of the calendar year.

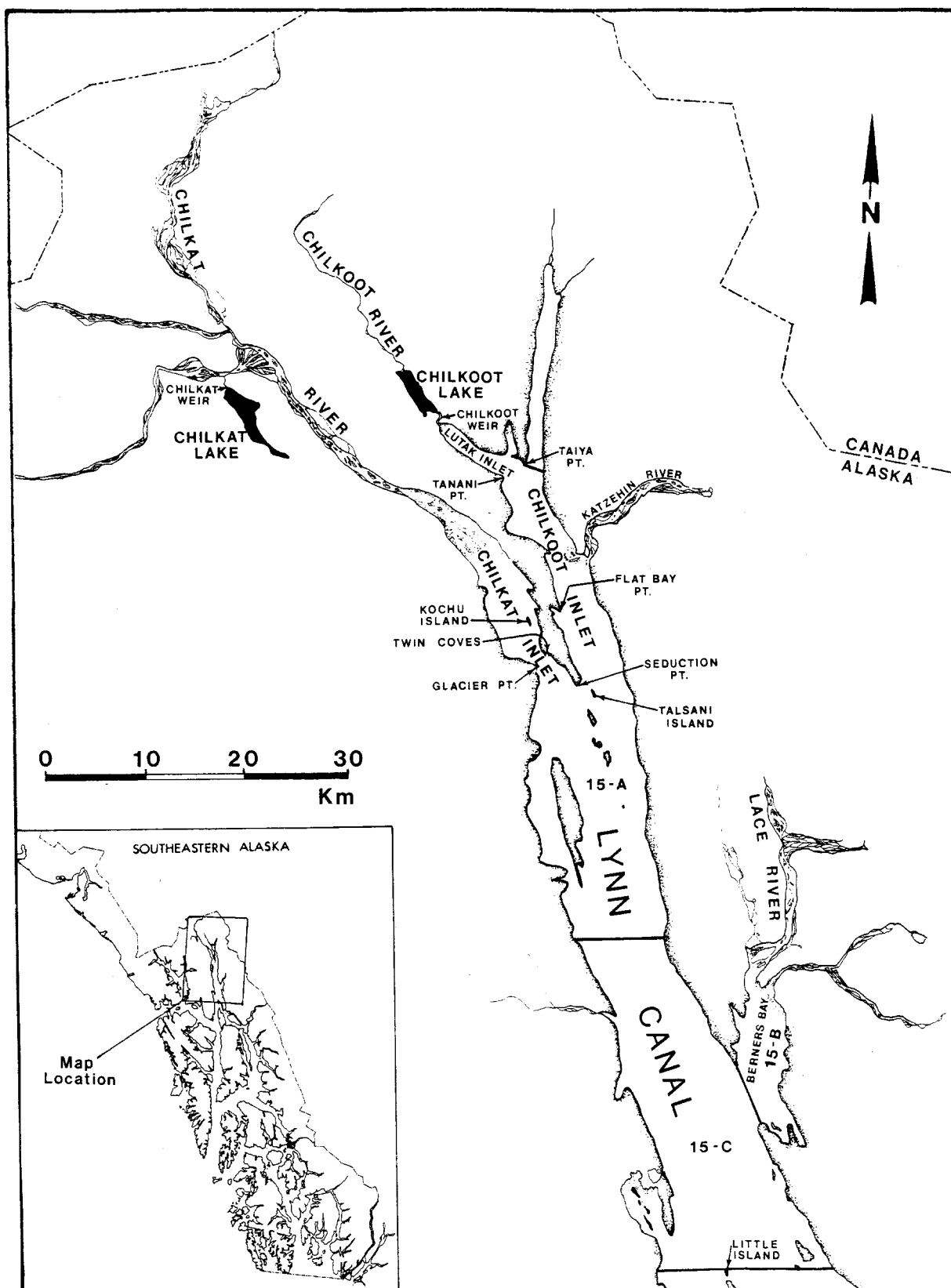


Figure 1. Map of Lynn Canal showing the fishing district and sections (e.g., 15-C) and principal spawning and rearing areas.

approximately 35 kilometers upstream from the mouth of Chilkat River, was operated from 9 June through 10 October.

Age, Sex, and Length

Catches and escapements were sampled throughout the season for scale, sex, and length data. Alaska Department of Fish and Game (ADF&G) employees sampled vessel and tender landings in the ports of Excursion Inlet, Sitka, Petersburg, Juneau, and Pelican. The weekly catch sampling goal of 700 fish was usually obtained. Catches after 19 September were small and not sampled; the age composition observed for the 16 to 19 September period was used. Dipnets were used to capture fish as they passed through the Chilkoot River weir, while beach seining was used at the Chilkat Lake weir site.

Scales were obtained from the left side of the fish approximately two rows above the lateral line in the area along a diagonal from the posterior insertion of the dorsal fin at the anterior insertion of the anal fin. The scales were mounted on gummed cards, and impressions made in cellulose acetate (Clutter and Whitesel 1956). Age was determined by visual examination of scale impressions magnified 70x on a microfiche reader. Ages were reported in European notation¹. Lengths were measured from mid-eye to fork-of-tail to the nearest 5 millimeters. Sex was determined by examination of external secondary sexual characteristics.

Estimates of the total catch or escapement of each age class were made by applying period age composition data to the number of fish during those time periods and summing the estimates across time periods. Total run age structure was estimated by summing the totals of catch and escapement age structure estimates.

Average lengths by age and sex were calculated for catches and escapements from each run.

Blind Test

Previous studies (McPherson and Marshall 1986) indicate that sufficient differences exist in freshwater scale patterns of Chilkat and Chilkoot stocks to identify the origin by visual inspection at low magnification. A blind test procedure was used to determine the accuracy of visual examination. Scales collected from fish in the escapements to each lake were randomly selected, remounted, and the origin recorded. The test included 100 scales from both 1-freshwater and 2-freshwater age groups.

I inspected each pattern on a microfiche reader at 70x and assigned an origin to each. The assigned origin was compared to the actual origin to determine

¹ European formula: Numerals preceding the decimal refer to the number of freshwater annuli, numerals following the decimal are the number of marine annuli. Total age is the sum of these two numbers plus 1.

accuracy. While size of the freshwater growth zone was the principal scale characteristic used to distinguish between runs, others taken into consideration were: (1) the size of the freshwater annuli; (2) the number of circuli in the freshwater annuli; (3) size of the focal plate; and (4) completeness of the freshwater circuli.

Mixed Stock Analysis

The proportion of fish originating from the Chilkoot and Chilkat Rivers was made by classifying scales obtained from catches during each fishing period. Point estimates were corrected for misclassification error rates using the procedure of Cook and Lord (1978). Stock composition estimates were expanded to the catch; variances and 90% confidence intervals were estimated around each estimate using the procedures of Pella and Robertson (1979).

Fish aged 0.2 and 0.3 were not present in samples collected at the Chilkoot Lake weir site, and only one fish age 0.3 was present in the samples collected at the Chilkat Lake weir site. Because fish of these age classes were commonly found in the mainstem Chilkat River (McGregor and McPherson 1986), I assigned them to the Chilkat run. Fish aged 1-freshwater and 2-freshwater were also present in the Chilkat mainstem and Lace River escapement samples and the scale patterns of these fish showed a small freshwater growth zone, slightly larger than those observed at Chilkoot Lake. I rarely found scales with this intermediate pattern in catch samples, however when present, they were assigned to the Chilkat run.

Mean Date of Arrival

Mean date of harvest and escapement was calculated by standard statistical procedures as a product of the weekly proportion of total and the average period date and summing those values across all time periods.

RESULTS

Blind Test

Results of the blind test to determine the accuracy of visual inspection to classify fish of the Chilkoot and Chilkat systems are summarized in Table 1. All samples included from Chilkat Lake were correctly classified, and 97.9% of the samples included from Chilkoot Lake were correctly classified. Fish with one freshwater annulus and two freshwater annuli were both classified with 99.0% accuracy. McPherson and Marshall (1986) documented that visual inspection of scale patterns was sufficient to distinguish between sockeye salmon of Chilkoot and Chilkat origin. McPherson et al. (1983) showed large and consistent differences in the number of circuli for fish aged 1.3 between Chilkoot (mean of 6.0, s.d. of 1.6) and Chilkat (mean 13.1, s.d. 2.2) Rivers for samples collected from 1976 through 1982. Similarly, the size of the freshwater zone was smaller for Chilkoot River fish (mean 54.6 s.d. 13.4) than Chilkat River fish (mean 149.0 s.d. 24.0). That such large differences are easy to distinguish with the naked eye is obvious by comparing photographs (Figures 2 and 3) for fish of each principal age class, by run.

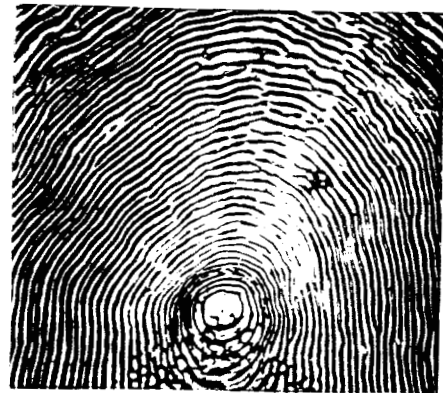
Table 1. Accuracy of visual classification by inspection of scale patterns for sockeye salmon of Chilkoot and Chilkat Lakes in 1984 as determined from a blind test procedure.

System	Aged 1.-	Aged 2.-	Weighted Avg.
Chilkoot			
Sample Size	51	43	94
Correctly Classified	50	42	92
Percent	98.0	97.7	97.9
Chilkat			
Sample Size	49	57	106
Correctly Classified	49	57	106
Percent	100.0	100.0	100.0
Total			
Sample Size	100	100	200
Correctly Classified	99	99	198
Percent	99.0	99.0	99.0

CHILKAT

CHILKOOT

AGED
1.1



AGED
1.2



AGED
1.3



AGED
1.4



Figure 2. Photographs of typical scale patterns of sockeye salmon aged 1.- from Chilkooot and Chilkat escapements.

CHILKOOT

CHILKAT

AGED

2.1



AGED

2.2



AGED

2.3



Figure 3. Photographs of typical scale patterns of sockeye salmon aged 2.- from Chilkooot and Chilkat escapements.

Harvest

The harvest of sockeye salmon in Lynn Canal occurred over an 18-week period (Table 2). Management strategies to selectively harvest or protect stocks of sockeye, coho (*O. kisutch*), pink (*O. gorbuscha*), or chum (*O. keta*) salmon resulted in considerable variation in the time and areas open to fishing each week.

Fish aged 1.3 dominated the catch (76.1%) followed by fish aged 2.3 (12.6%), 2.2 (8.0%), 1.2 (1.8%); fish of all other age classes accounted for 1.5% (see Appendix Table 1). Temporal trends in age composition of the catch were evident (Figure 4a). The relative abundance of fish aged 1.3 decreased while those aged 2.3 increased. During the last half of the season, fish aged 2.2 also increased in relative abundance.

The harvest of 334,373 sockeye salmon was comprised of 231,792 Chilkoot River fish and 102,581 Chilkat River fish (Appendix Table 2). Fish of both runs were caught in each fishing period during the 18-week season (Figure 5), except during the last fishing period when low catches produced only Chilkat River fish.

The harvest of Chilkoot River fish was mostly fish aged 1.3 (91.4%) and 2.3 (6.0%) (Appendix Table 3). The relative abundance of fish aged 1.3 decreased slightly as the season progressed while fish aged 2.3 increased slightly (see Figure 4c). The mean date of the harvest of Chilkoot fish was 31 July. The mean dates of harvest for fish aged 1.2, 1.3, and 2.3 were 2 August, 31 July, and 7 August, respectively.

The catch of Chilkat River fish was dominated by fish aged 1.3 (41.5%) followed by fish aged 2.3 (27.6%), 2.2 (25.8%), and 0.3 (4.2%) (Appendix Table 4). Fish of other age classes accounted for less than 1% of the catch. Early in the run, (Figure 5b) aged 1.3 fish predominated and accounted for 67.7% to 74.2% of the harvest. The percent of fish aged 1.3 dropped sharply to 39.9% of the catch during week 31 and continued to decrease steadily to 6.8% in the last sampling period, week 38. The relative abundance of fish aged 2.3 and 2.2 increased as the season progressed. The mean date of harvest for the Chilkat fish was 4 August. Fish aged 1.3 arrived earliest (23 July) followed by fish aged 2.3 (14 August), and 2.2 (17 August).

Escapement

The estimated escapement of sockeye salmon into Chilkat Lake was 115,269 fish. The weir was operated from 9 June through 10 October (see Appendix Table 5). The escapement was characterized by two periods, a weak early period from 9 June through 27 August and a strong late period from 28 August through 10 October (Figure 6). During the early period when counts were low, modes were observed on 2 July, 24 July, and 17 August. During the late period when counts were relatively high, modes were observed on 31 August and 23 September.

The estimated escapement in Chilkoot Lake was 100,417 fish. The weir was operated from 4 June through 12 September (see Appendix Table 6). The escapement was protracted and peak periods of escapement occurred in late June, in July through early August, and in late August (Figure 6).

Table 2. Fishery openings, effort, and harvest of sockeye salmon in Lynn Canal (District 115) by date and statistical week, 1984.

Section	Statistical Week	Dates Fished	Hours (H)	Boats (B) 1/	Catch	CPUE Fish/Boatday
15-A 2/	25	6/17 - 6/20	72	65	4,776	24.5
15-A 3/	26	6/24 - 6/27	72	70	12,181	58.0
15-A 4/	27	7/01 - 7/04	72	80	13,873	57.8
15-A 4/	28	7/08 - 7/11	72	86	14,058	54.5
15-AB & C 5/	29	7/15 - 7/18	72	101	30,690	101.3
15-AB & C 6/	30	7/22 - 7/25	72	150	58,370	129.7
15-A & C 7/	31	7/29 - 8/01	72	162	56,350	115.9
15-A & C 7/	32	8/05 - 8/09	96 8/	185	50,595	68.4
15-A & C 7/	33	8/12 - 8/15	72	159	39,325	82.4
15-A & C 9/	34	8/19 - 8/23	96 10/	146	22,365	38.3
15-A & C 11/	35	8/26 - 8/31	120 12/,13/	130	16,561	25.5
15-A & C 14/	36	9/02 - 9/06	96 15/	149	7,926	13.3
15-A & C	37	9/09 - 9/12	72	200	4,364	7.3
15-A & C	38	9/16 - 9/19	72 16/	238	1,755	2.5
15-A & C	39	9/23 - 9/27	96	244	1,014	1.0
15-A & C	40	9/30 - 10/3	72	137	108	0.3
15-A & C	41	10/7 -10/10	72	76	54	0.2
15-A & C	42	10/14-10/16	48	54	8	0.1

1/ Ray Staska - personal communication.

2/ Section 15-A open south of the latitude of Seduction Point.

3/ Section 15-A open north of the latitude of Katzeihin River flats buoy and south of the latitude of Seduction Point.
Chilkat Inlet closed.
Lutak Inlet closed northwest of a line between Tanani Point and Taiya Point (normal markers).

4/ Section 15-A open except Chilkat Inlet is closed north of the latitude of the southernmost tip of Seduction Point and Lutak Inlet is closed northwest of a line between Tanani Point and Taiya Point (normal markers).

5/ Section 15-A open same as above.
Section 15-B open to harvest pink and chum salmon.
Section 15-C open only within two nautical miles of western shore of Lynn Canal to harvest pink and chum salmon.

6/ Section 15-A open except Chilkat Inlet closed north of a line from Glacier Point marker to a marker at 59°06'35" N. lat.; 135°21'42" W. long. (the westernmost tip of Twin Coves).
Lutak Inlet is open.
Section 15-B open to harvest pink and chum salmon.
Section 15-C open same as above.

-Continued-

Table 2. Fishery openings, effort, and harvest of sockeye salmon in Lynn Canal (District 115) by date and statistical week, 1984 (continued).

-
- 7/ Section 15-A open same as above.
Section 15-C open same as above.

 - 8/ Section 15-A extended 24 hours (noon 8/8 through noon 8/9)

 - 9/ Section 15-A open south of the latitude of the southernmost tip of Talsani Island and in Chilkoot Inlet and Lutak Inlet north of the latitude of Flat Bay Point.
Chilkat Inlet is closed.
Section 15-C is open except gillnet mesh may not be less than six and one-quarter inches to minimize the impact on sockeye salmon returning to Chilkat River while allowing the harvest of good quality fall chum salmon.

 - 10/ Section 15-A extended 48 hours (noon 8/21 through noon 8/23) to allow harvest of Chilkoot River sockeye salmon which are excess to spawning escapement needs at this time.

 - 11/ Section 15-A open except Chilkat Inlet open only south of the latitude of the northernmost tip of Kochu Island from noon 8/26 through noon 8/27 with a minimum mesh size restriction of six and one-quarter inches to minimize the catch of Chilkat River sockeye while allowing harvest of fall chum salmon.
From noon 8/27 through noon 8/28 Chilkat Inlet is closed north of the latitude of Seduction Point.
Lutak Inlet is open.
Section 15-C is open.

 - 12/ Section 15-A extended 24 hours (noon 8/28 through noon 8/29) except Chilkat Inlet is closed north of the latitude of Seduction Point, to harvest chum salmon.

 - 13/ Section 15-A extended an additional 48 hours (noon 8/29 through noon 8/31) in those portions of Chilkoot Inlet and Lutak Inlet north of the latitude of Flat Bay Point, to harvest Chilkoot River sockeye salmon.

 - 14/ Section 15-A open except Chilkat Inlet is closed north of a line from the Glacier Point marker to a marker 59 06'35" N. lat.; 135 21'42" W. long. (the westernmost tip of Twin Coves).
Section 15-C is open.

 - 15/ Section 15-A extended 48 hours (noon 9/4 through noon 9/6) only in those portions of Chilkoot Inlet and Lutak Inlet north of the latitude of Flat Bay Point, to harvest Chilkoot River sockeye.

 - 16/ Section 15-A and 15-C extended 24 hours (noon 9/18 through noon 9/19) except 15-C open only within two nautical miles of the western shore of Lynn Canal.

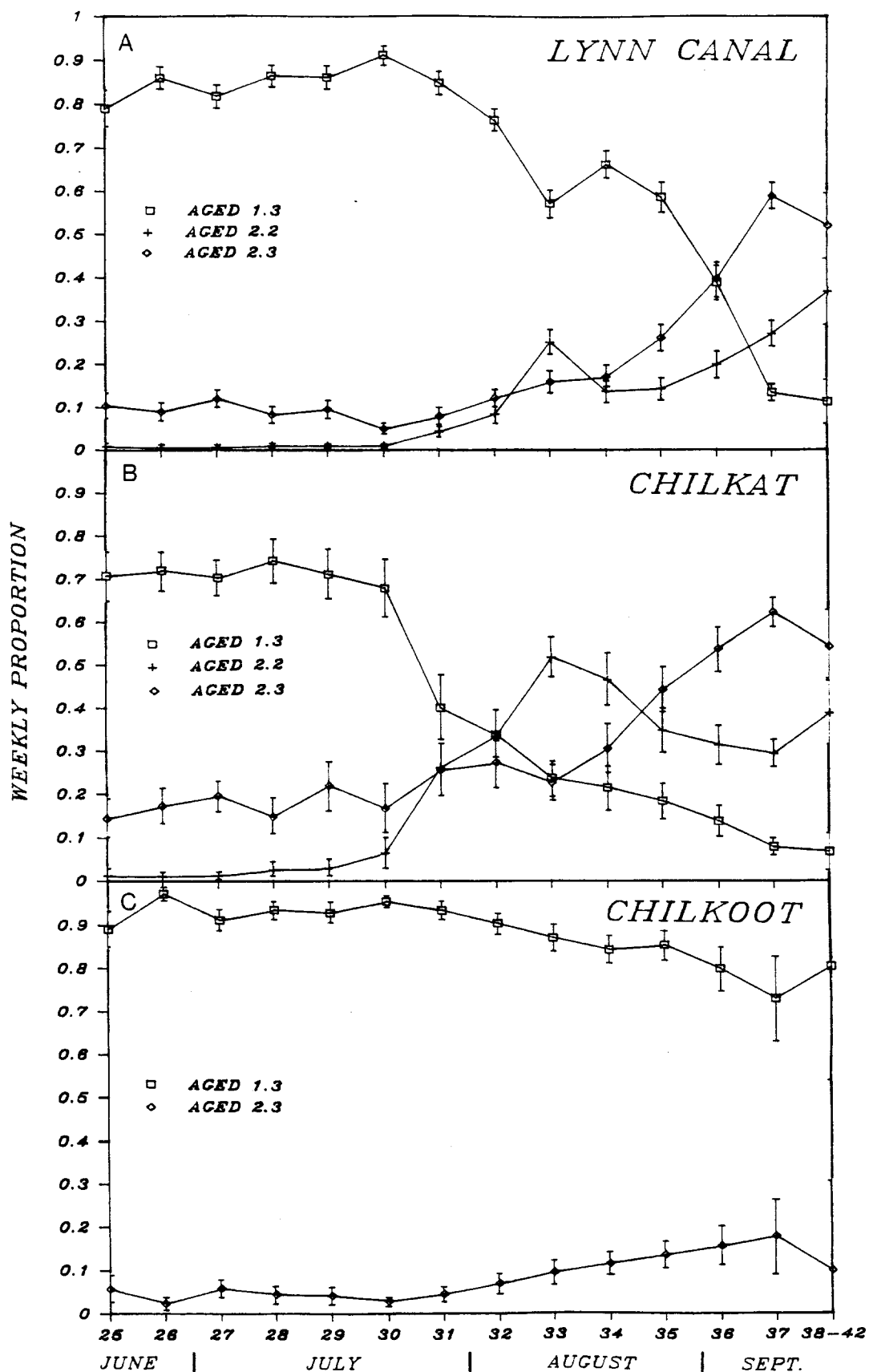


Figure 4. The weekly proportion of the principal age classes and associated 95% confidence intervals of catch samples of Lynn Canal sockeye salmon, in total and by stock, 1984.

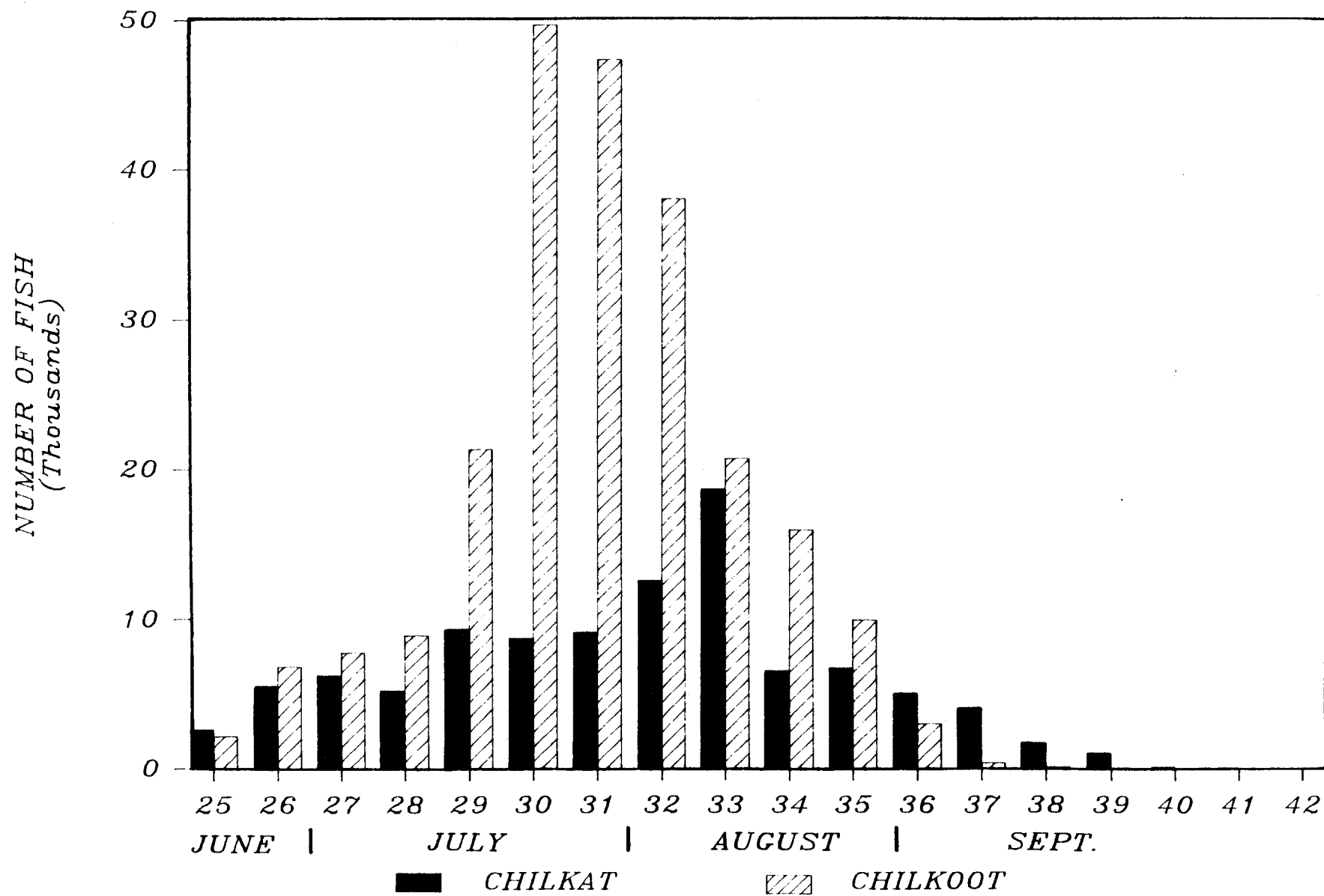


Figure 5. The catch of Chilkoot and Chilkat River sockeye salmon in the Lynn Canal drift gillnet fishery, by statistical week, 1984.

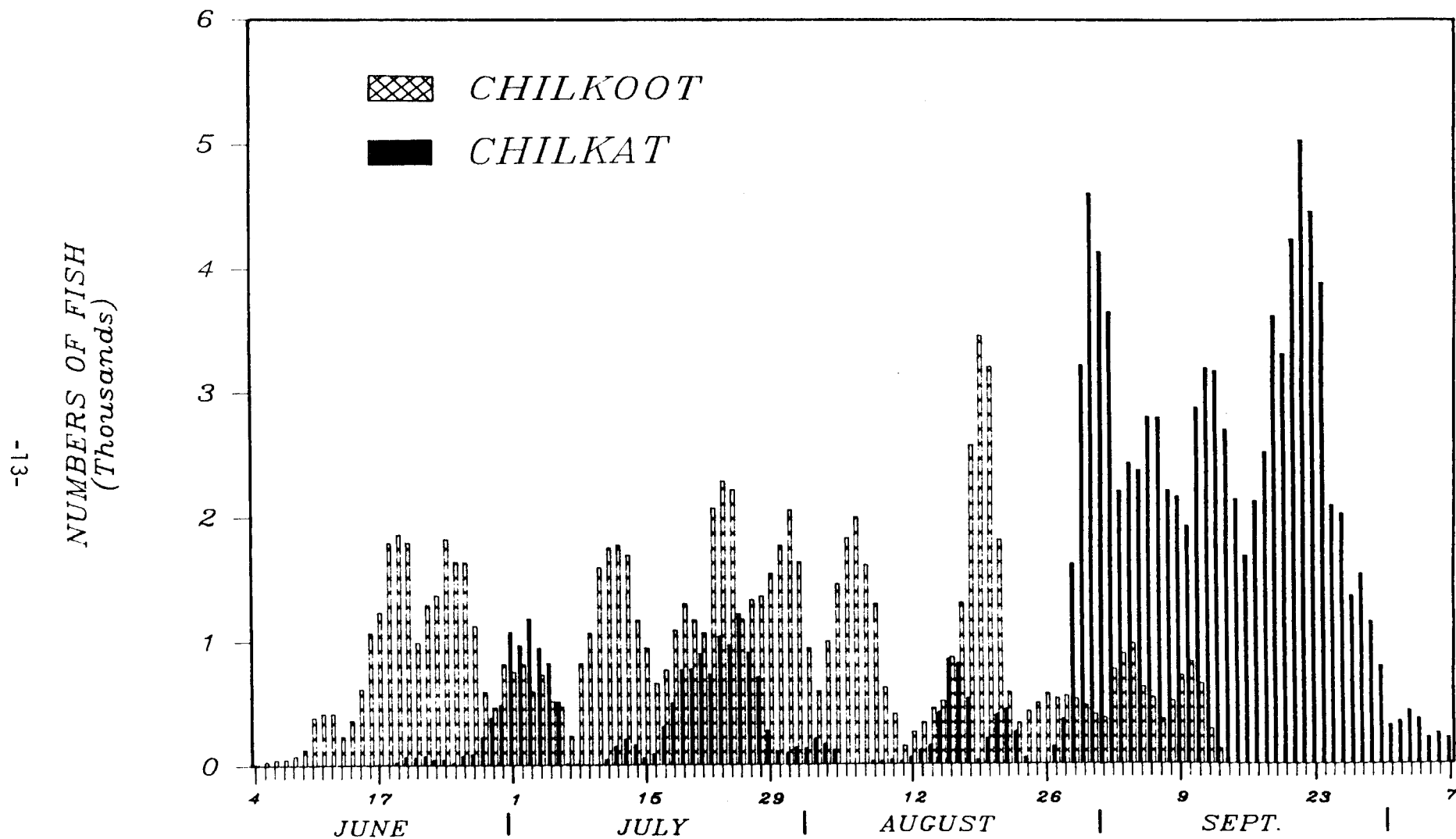


Figure 6. Escapement of sockeye salmon into Chilkat and Chilkoot Lakes by moving 3-day average, 1984.

In the Chilkat River escapement, fish aged 2.2 (53.5%) dominated, followed by fish aged 1.3 (22.7%), and 2.3 (20.2%). Eight other age classes contributed to the remaining 3.6% of the fish in the escapement (see Appendix Table 7). Weekly estimates of age composition (note small sample sizes for some periods) (Figure 7a) show that fish aged 1.3 decreased in relative abundance through the season while those aged 2.2 and 2.3 increased.

Limited samples collected from the mainstem Chilkat River on 18 October indicate a majority (91.1%) of three ocean-age fish were present. Fish aged 1.3 were most abundant (63.0%) followed by fish aged 0.3 (28.1%) (for more information on escapements see McGregor and McPherson 1986). Fish aged 0.2 comprised 6.7% of the samples, while fish of other age classes accounted for less than 3% of the total.

Samples collected from the Lacey River on 11 August were dominated by fish aged 1.3 (91.0%) followed by fish aged 0.3 (6.6%) and fish aged 1.2 (1.6%) (for more information see McGregor and McPherson 1986). The collection was comprised almost exclusively (98.4%) of three-ocean age fish.

In the Chilkoot River escapement, fish aged 1.3 (85.5%) dominated samples, while fish aged 2.3 (8.5%) and 1.2 (4.7%) were common (Appendix Table 8). Two other age classes (2.2 and 1.4) accounted for the remaining 1.3%. Similar to catch samples, trends through time in the age composition of the escapement (Figure 7b) showed that fish aged 1.3 decreased slightly in relative abundance, while age class 2.3 fish increased slightly as the escapement progressed.

Exploitation Rates

The total run of Chilkoot River sockeye salmon origin was 332,209 fish of which 231,792 were caught and 100,417 escaped to spawn (Table 3). The exploitation rate for this run was 0.70. The total run of Chilkat River sockeye salmon was 217,850 of which 102,581 were harvested and 115,269 escaped to spawn. The exploitation rate for this run was 0.47.

Exploitation rates tended to increase directly with ocean-age regardless of stock (Table 3). Ocean-age-1 fish were unexploited. Among ocean-age-2 fish approximately one-quarter of the Chilkat fish (0.23 and 0.30) and one-half of the Chilkoot fish (0.48 and 0.53) were caught. Exploitation rates were similar though slightly greater for Chilkoot than for Chilkat among fish aged 1.3 (0.71 and 0.62) and 2.3 (0.62 and 0.55), respectively. Fish aged 1.4 were rare in both runs; exploitation rates were 0.30 and 0.40.

Size at Age by Sex and Stock

Chilkat Lake sockeye salmon were larger than Chilkoot Lake fish of the same age and sex (Table 4). In catch samples, the difference for fish aged 2.2 averaged 61 mm for males and 15 mm for females, while for fish aged 1.3 the average difference was 21 mm for males and 33 mm for females. In the escapements, differences in size between the two stocks were not as great: males 21 mm; females 33 mm for fish aged 2.2 and males 21 mm; females 9 mm for fish aged 1.3

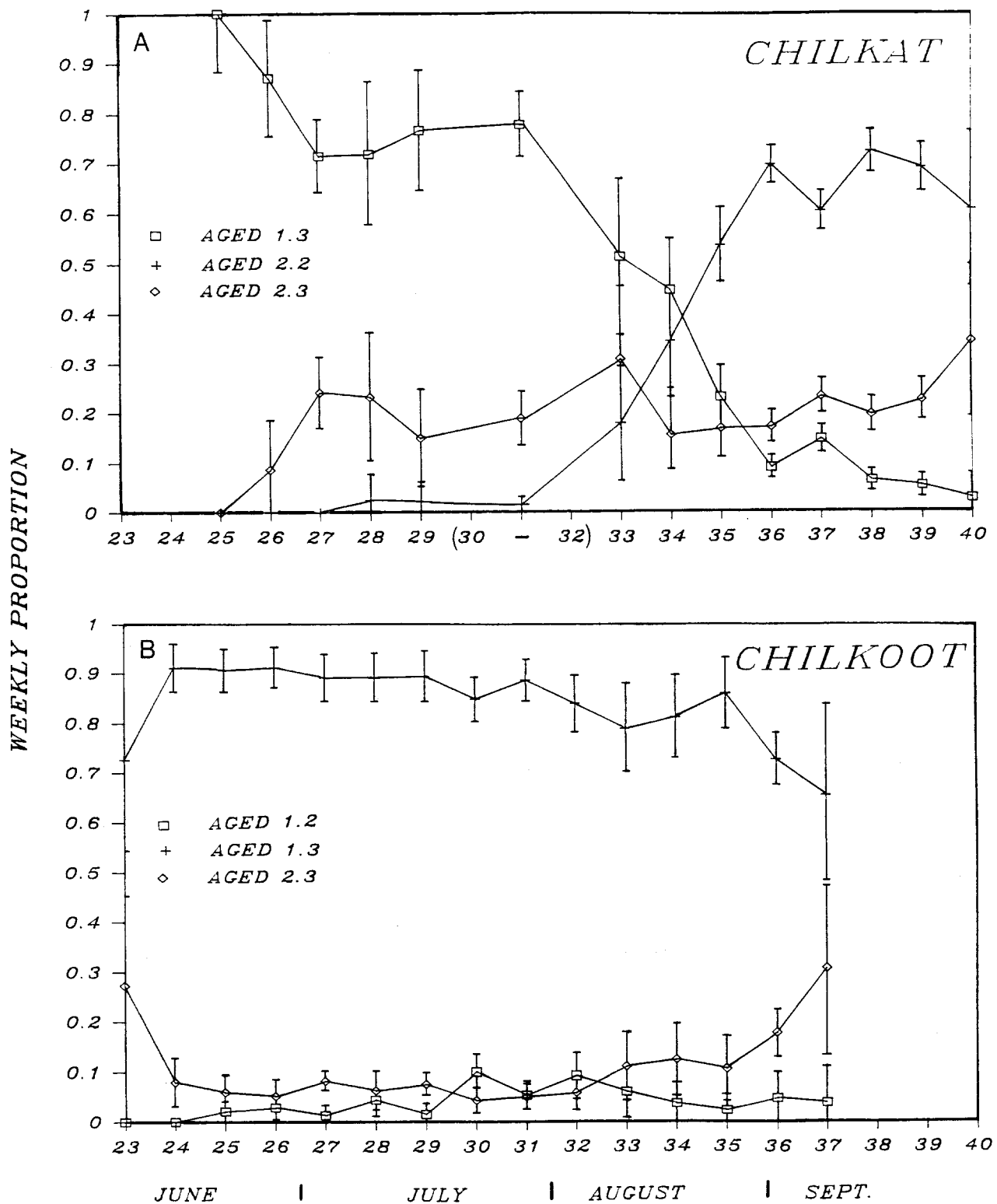


Figure 7. The weekly proportion of the principal age classes and associated 95% confidence intervals of escapement samples of Chilkat and Chilkoot Lake sockeye salmon, 1984.

Table 3. Catch, escapement, total run, and exploitation rates of Lynn Canal (District 115) sockeye salmon by age class and system, 1984.

		Brood Year and Age Class											Total	
		1981		1980			1979		1978			1977		
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4		3.3
Chilkoot														
Catch	N				5,340		211,775	315	426	13,797		139		231,792
	%				2.3		91.4	0.1	0.2	6.0		<0.1		100.0
Escapement	N				4,704		85,894	344	977	8,498				100,417
	%				4.7		85.5	0.3	1.0	8.5				100.0
Total Run	N				10,044		297,669	659	1,403	22,295		139		332,209
	%				3.0		89.6	0.2	0.4	6.7		<0.1		100.0
Exploitation Rate					0.53		0.71	0.48	0.30	0.62		1.00		0.70
Chilkat														
Catch 1/	N	19		4,329	569		42,592	26,489	47	28,352	47	47	90	102,581
	%	<0.1		4.2	0.6		41.5	25.8	<0.1	27.6	<0.1	<0.1	0.1	100.0
Escapement	N		134	41	1,869	1,756	26,120	61,666	70	23,278	248	36	51	115,269
	%		0.1	<0.1	1.6	1.5	22.7	53.5	0.1	20.2	0.2	<0.1	<0.1	100.0
Total Run	N	19	134	4,370	2,438	1,756	68,712	88,155	117	51,630	295	83	141	217,850
	%	<0.1	0.1	2.0	1.1	0.8	31.5	40.5	0.1	23.7	0.1	<0.1	0.1	100.0
Exploitation Rate			0.00		0.23	0.00	0.62	0.30	0.40	0.55	0.16	0.57	0.64	0.47

1/ Includes sockeye salmon from the Chilkat River mainstem and Lace River.

Table 4. Mean length, standard error, and sample sizes by sex and age class of sockeye salmon from Lynn Canal catches and escapements, 1984.

System			Sex			Brood Year and Age Class										
						1981		1980		1979		1978			1977	
						0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4
Chilkat River Mainstem Escapement 1/	M	Mean Length	429	325	582	445		581								
		Std. Error	10.6		4.9	15.0		4.9								
		Number	8	1	19	2		37								
	F	Mean Length	485		540			558								
		Std. Error			5.4			2.3								
		Number	1		19			46								
Chilkat Lake Escapement 1/	M	Mean Length		332	560	511	353	610	520		601	553	600	610		
		Std. Error		0.0		4.8	1.9	0.5	0.7		0.9	32.4				
		Number		2	1	27	41	350	751		318	3	1	1		
	F	Mean Length				509	330	585	517	630	582	543				
		Std. Error				6.0		0.7	0.5		0.9	0.0				
		Number				14	1	270	710	1	231	2				
Chilkat River Catch	M	Mean Length			585	520		599	552	550	610	550		618		
		Std. Error			3.1	10.7		0.9	1.5		0.8	20.0		17.5		
		Number			98	13		907	705	1	1,050	2		2		
	F	Mean Length	550		571	530		580	537		591	551	550	602		
		Std. Error			2.7	21.3		0.8	1.3		1.0			23.0		
		Number	1		97	6		931	437		644	1	1	2		
Chilkoot Lake Escapement 1/	M	Mean Length				456		581	459	601	581					
		Std. Error				2.3		0.4	1.4	3.9	1.1					
		Number				73		850	5	9	77					
	F	Mean Length				487		562	502	602	560					
		Std. Error				3.3		0.4	0.0	7.8	1.6					
		Number				13		798	2	6	68					
Chilkoot Lake Catch	M	Mean Length				506		584	531	617	587		607			
		Std. Error				3.6		0.5	19.6	6.9	1.6		15.3			
		Number				107		3,198	6	14	264		10			
	F	Mean Length				506		571	504	595	574		618			
		Std. Error				4.8		0.4	5.5	6.1	1.9		17.5			
		Number				44		2,840	4	4	189		2			

1/ McGregor and McPherson. 1986

Chilkoot Lake fish aged 1.2, 2.2, 1.3, and 2.3 were generally of a larger size in the catches than in the escapements with the exception of females aged 2.3 (Table 4). The difference in mean lengths between the catch and escapement of ocean-age-3 fish was less than 10 mm within the same sex and age class. However, among ocean-age-2 fish the difference was far greater and ranged from 72 mm for males aged 2.2 to 50 mm for males aged 1.2

Chilkat River fish in catches were also larger than those sampled in escapements with one exception: males were 11 mm smaller and females were 4 mm smaller for fish aged 1.3 (Table 4). Ocean-age-2 fish exhibited the largest differences for males aged 2.2 (32 mm) and for females aged 1.2 (29 mm). Among ocean-age-3 fish males aged 0.3 showed the greatest difference (31 mm).

DISCUSSION

The calculation of exploitation rates by run provides the opportunity to evaluate the success of management decisions aimed at selectively harvesting one or both runs. Chilkoot run sockeye salmon were exploited at a higher rate (0.70) than Chilkat run fish (0.47) in 1984. The difference was due to: (1) management actions which favored the harvest of Chilkoot River fish, principally by extending time and area openings in upper Chilkoot Inlet and Lutak Inlet during much of the season (Table 2); and (2) the fact that the Chilkoot total return (332,209 fish) was much larger than the Chilkat total return (217,850 fish). These exploitation rates mirror those observed in 1983 when similar management strategies resulted in exploitation rates of 0.75 and 0.49 for Chilkoot and Chilkat fish, respectively (McPherson and Marshall 1986). Current management strategies are obviously effective at directing the effort on Chilkoot run fish.

Estimation of the mean dates of arrival in the harvest is a first step toward categorizing Chilkoot and Chilkat catches of sockeye salmon into early, late, and average runs with respect to migratory timing. A measure of dispersion around this estimate allows us to measure the protraction of each run. The mean dates of catch for both runs were similar in 1984, 31 July and 4 August for Chilkoot and Chilkat, respectively. The mean dates of catch were also similar in 1983 (7 and 10 August, respectively) but one week later than those observed in 1984. Though the mean dates of catch were similar in 1984, the Chilkat run was more protracted due to the difference in timing of the three major age classes (Appendix Tables 3 and 4).

The significant difference ($p < 0.001$) in migratory timing between age class (Figure 8; Appendix Table 9) within the Chilkat Lake run suggests that an objective division of the Chilkat Lake sockeye salmon population into two components is possible. The presence of discrete timing for age classes within the Chilkat Lake run has fishery management implications. Also, if two discrete temporal components exist, separate strategies for setting and achieving escapement goals need to be evaluated.

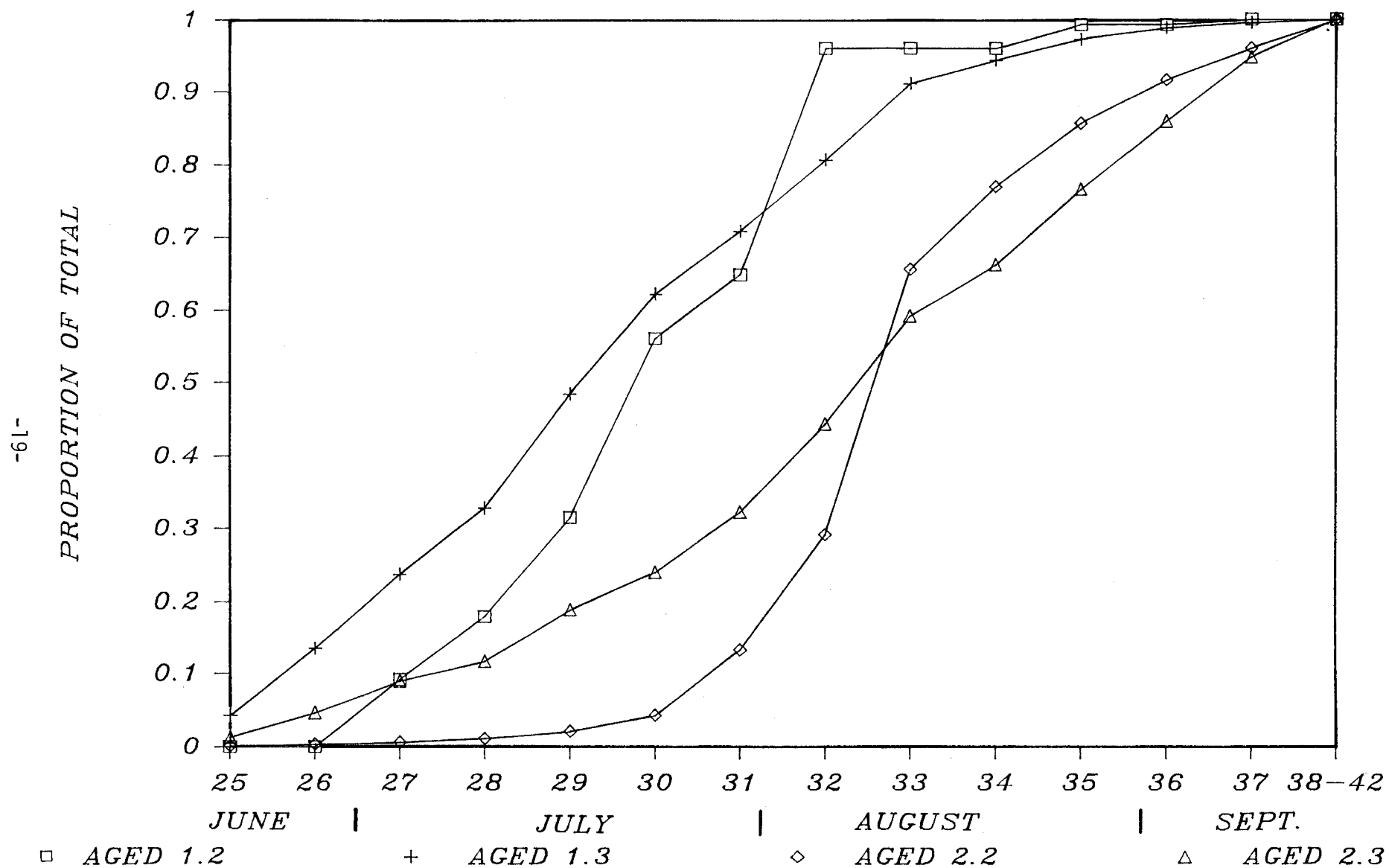


Figure 8. Cumulative proportion of catch by age of Chilkat River sockeye salmon in the Lynn Canal drift gillnet fishery, 1984.

ACKNOWLEDGMENTS

Valuable assistance in data collection was provided by Iris Frank, Andrew McGregor, Keith Pahlke, and Demarie Wood. Thanks is due Fred Bergander and the weir crews (Patty Hambrook-Faverty, Jan Highfield, Kip Kermoin, David Walker, and Bob Hill) for collection of the escapement data. Bob Syre of Excursion Inlet Processors provided logistic support. Eileen Sturrock and Dennis Muchmore set up the blind test and edited the data files. Thanks is given to June Grant for typing the final manuscript. Appreciation is extended to Dr. John E. Clark for biometrics assistance. Mr. Bob Wilbur, Ben Van Alen, and Kathleen Jensen provided critical review.

LITERATURE CITED

- Bergander, F. 1974. Southeastern Alaska sockeye salmon optimum escapement studies. Anadromous Fish Conservation Act. Completion Report for period July 1, 1971 - June 30, 1974. AFC-40. Alaska Dept. of Fish and Game, 56 pp.
- Clutter, R. and L. Whitesel. 1956. Collection and interpretation of sockeye salmon scales. Bull. Int. Pac. Salmon Fish. Comm., No. 9, 159 pp.
- Cook, R. and G. Lord. 1978. Identification of stocks of Bristol Bay sockeye salmon by evaluating scale patterns with a polynomial discriminant method. U.S. Fish and Wild. Serv., Fish. Bull. 76(2): 415-423.
- Marshall, S., F. Bergander, and S. Sharr. 1982. Origins of sockeye salmon in the Lynn Canal drift gillnet fishery of 1981 based on scale pattern analysis. Alaska Dept. of Fish and Game, Technical Data Report No. 75, 30 pp.
- McGregor, A. and S. McPherson. 1986. Abundance, age, sex, and size of sockeye salmon (*Oncorhynchus nerka* Walbaum) catches and escapements in Southeastern Alaska in 1984. Alaska Dept. of Fish and Game, Technical Data Report No. 166, 213 pp.
- McPherson, S., A. McGregor, and S. Marshall. 1983. Origins of sockeye salmon (*Oncorhynchus nerka* Walbaum) in the Lynn Canal drift gillnet fishery of 1982 based on scale pattern analysis. Alaska Dept. of Fish and Game, Technical Data Report No. 87, 31 pp.
- McPherson, S. and S. Marshall. 1986. Contribution, exploitation, and migratory timing of Chilkat and Chilkoot River runs of sockeye salmon (*Oncorhynchus nerka* Walbaum) in the Lynn Canal drift gillnet fishery of 1983. Alaska Dept. of Fish and Game, Technical Data Report No. 165, 39 pp.
- Pella, J. and T. Robertson. 1979. Assessment of composition of stock mixtures. Fishery Bull. 77(2): 387-389.

Personal Communications

- Staska, R. 1986. ADF&G, Commercial Fisheries, Haines, Alaska.

APPENDICES

Appendix Table 1. Numbers by age of sockeye salmon harvested in the Lynn Canal drift gillnet fishery, by period, 1984.

			Brood Year and Age Class										
Stat Week	Inclusive Dates	Sample Size	1981	1980		1979		1978			1977		Total
			0.2	0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	
25	6/17-6/23	476		355	51	3,781	40	31	497		21		4,776
26	6/24-6/30	807		514	15	10,484	74		1,094				12,181
27	7/01-7/07	1,045		491	242	11,360	77	41	1,662				13,873
28	7/08-7/14	816		383	226	12,146	133	18	1,152				14,058
29	7/15-7/21	757		309	781	26,409	271		2,920				30,690
30	7/22-7/28	1,116		561	1,048	53,215	561	100	2,838		47		58,370
31	7/29-8/04	1,004		705	968	47,694	2,426	115	4,442				56,350
32	8/05-8/11	1,066		536	1,195	38,509	4,249		6,106				50,595
33	8/12-8/18	946		243	595	22,394	9,792	42	6,177			82	39,325
34	8/19-8/25	873		73	576	14,755	3,027	78	3,780	24	52		22,365
35	8/26-9/01	864	19	111	97	9,656	2,338	20	4,281	19	20		16,561
36	9/02-9/08	665		48	85	3,055	1,566	24	3,124		24		7,926
37	9/09-9/15	1,038			13	582	1,174	4	2,557	4	22	8	4,364
38-42	9/16-10/16	172			17	327	1,076		1,519				2,939
Total	Number Percent	11,660	19 0.01	4,329 1.29	5,909 1.77	254,367 76.07	26,804 8.02	473 0.14	42,149 12.61	47 0.01	186 0.06	90 0.03	334,373

Appendix Table 2. Estimated contribution of Chilkat and Chilkoot River sockeye salmon to the drift gillnet catch in Lynn Canal, by statistical week, 1984.

Statistical Week	Inclusive Dates	Chilkoot		Chilkat	
		Proportion 1/	Number of Fish	Proportion 1/	Number of Fish
25	6/17-6/23	0.455 ± 0.040	2,173	0.545 ± 0.040	2,603
26	6/24-6/30	0.555 ± 0.033	6,760	0.445 ± 0.033	5,421
27	7/01-7/07	0.554 ± 0.029	7,686	0.446 ± 0.029	6,187
28	7/08-7/14	0.632 ± 0.033	8,885	0.368 ± 0.033	5,173
29	7/15-7/21	0.695 ± 0.033	21,330	0.305 ± 0.033	9,360
30	7/22-7/28	0.851 ± 0.028	49,673	0.149 ± 0.028	8,697
31	7/29-8/04	0.839 ± 0.029	47,278	0.161 ± 0.029	9,072
32	8/05-8/11	0.751 ± 0.029	37,997	0.249 ± 0.029	12,598
33	8/12-8/18	0.526 ± 0.030	20,685	0.474 ± 0.030	18,640
34	8/19-8/25	0.711 ± 0.032	15,902	0.289 ± 0.032	6,463
35	8/26-9/01	0.598 ± 0.032	9,903	0.402 ± 0.032	6,658
36	9/02-9/08	0.376 ± 0.033	2,980	0.624 ± 0.033	4,946
37	9/09-9/15	0.084 ± 0.014	367	0.916 ± 0.014	3,997
38-42	9/16-10/16	0.059 ± 0.030	173	0.941 ± 0.030	2,766
Total	6/17-10/16	0.693	231,792	0.307	102,581

1/ Confidence interval is 90%.

Appendix Table 3. Age composition of Chilkoot River fish harvested in 1984, by statistical week and sex.

		Brood Year and Age Class						Total
		1980	1979		1978		1977	
		1.2	1.3	2.2	1.4	2.3	2.4	
Statistical Week 25 (June 17 - 23)								
Male								
Sample Number	3	76	1	2	8	2	92	
Percent	1.5	35.8	0.5	0.9	3.8	0.9	43.4	
Standard Error	0.8	3.3	0.5	0.7	1.3	0.7	3.4	
Number	30	779	10	21	82	21	943	
Female								
Sample Number	2	113		1	4		120	
Percent	0.9	53.3		0.5	1.9		56.6	
Standard Error	0.7	3.4		0.5	0.9		3.4	
Number	21	1,158		10	41		1,230	
Sexes Combined								
Sample Number	5	189	1	3	12	2	212	
Percent	2.4	89.1	0.5	1.4	5.7	0.9	100.0	
Standard Error	1	2.1	0.5	0.8	1.6	0.7		
Number	51	1,937	10	31	123	21	2,173	
Statistical Week 26 (June 24 - 30)								
Male								
Sample Number		232	1		3		236	
Percent		53.0	0.2		0.7		53.9	
Standard Error		2.4	0.2		0.4		2.4	
Number		3,581	15		46		3,642	
Female								
Sample Number	1	194			7		202	
Percent	0.2	44.3			1.6		46.1	
Standard Error	0.2	2.4			0.6		2.4	
Number	15	2,995			108		3,118	
Sexes Combined								
Sample Number	1	426	1		10		438	
Percent	0.2	97.3	0.2		2.3		100.0	
Standard Error	0.2	0.8	0.2		0.7			
Number	15	6,576	15		154		6,760	
Statistical Week 27 (July 1 - 7)								
Male								
Sample Number	9	299		2	26		336	
Percent	1.6	52.8		0.4	4.6		59.4	
Standard Error	0.5	2.1		0.2	0.9		2.1	
Number	122	4,060		27	353		4,562	
Female								
Sample Number	5	217		1	7		230	
Percent	0.9	38.3		0.2	1.2		40.6	
Standard Error	0.4	2.0		0.2	0.5		2.1	
Number	68	2,947		14	95		3,124	
Sexes Combined								
Sample Number	14	516		3	33		566	
Percent	2.5	91.2		0.5	5.8		100.0	
Standard Error	0.7	1.2		0.3	1.0			
Number	190	7,007		41	448		7,686	
Statistical Week 28 (July 8 - 14)								
Male								
Sample Number	10	238		1	12		261	
Percent	2.0	47.1		0.2	2.4		51.7	
Standard Error	0.6	2.2		0.2	0.7		2.2	
Number	176	4,187		18	211		4,592	
Female								
Sample Number		234			10		244	
Percent		46.3			2.0		48.3	
Standard Error		2.2			0.6		2.2	
Number		4,117			176		4,293	
Sexes Combined								
Sample Number	10	472		1	22		505	
Percent	2.0	93.4		0.2	4.4		100.0	
Standard Error	0.6	1.1		0.2	0.9			
Number	176	8,304		18	387		8,885	
Statistical Week 29 (July 15 - 21)								
Male								
Sample Number	13	226			7		246	
Percent	2.5	43.9			1.4		47.8	
Standard Error	0.7	2.2			0.5		2.2	
Number	538	9,360			290		10,188	
Female								
Sample Number	4	251			14		269	
Percent	0.8	48.7			2.7		52.2	
Standard Error	0.4	2.2			0.7		2.2	
Number	166	10,396			580		11,142	
Sexes Combined								
Sample Number	17	477			21		515	
Percent	3.3	92.6			4.1		100.0	
Standard Error	0.8	1.2			0.9			
Number	704	19,756			870		21,330	

-Continued-

Appendix Table 3. Age composition of Chilkoot River fish harvested in 1984, by statistical week and sex (continued).

		Brood Year and Age Class					
		1980	1979		1978		1977
		1.2	1.3	2.2	1.4	2.3	2.4
		Total					

Statistical Week 30 (July 22 - 28)							
Male							
Sample Number		12	500		1	16	529
Percent		1.3	53.8		0.1	1.7	56.9
Standard Error		0.4	1.6		0.1	0.4	1.6
Number		641	26,706		53	855	28,255
Female							
Sample Number		5	386			10	401
Percent		0.5	41.5			1.1	43.1
Standard Error		0.2	1.6			0.3	1.6
Number		267	20,617			534	21,418
Sexes Combined							
Sample Number		17	886		1	26	930
Percent		1.8	95.3		0.1	2.8	100.0
Standard Error		0.4	0.7		0.1	0.5	
Number		908	47,323		53	1,389	49,673

Statistical Week 31 (July 29 - August 4)							
Male							
Sample Number		10	374		1	18	403
Percent		1.2	45.4		0.1	2.2	48.9
Standard Error		0.4	1.7		0.1	0.5	1.7
Number		574	21,459		57	1,033	23,123
Female							
Sample Number		6	394	1	1	19	421
Percent		0.7	47.9	0.1	0.1	2.3	51.1
Standard Error		0.3	1.7	0.1	0.1	0.5	1.7
Number		344	22,606	57	58	1,090	24,155
Sexes Combined							
Sample Number		16	768	1	2	37	824
Percent		1.9	93.3	0.1	0.2	4.5	100.0
Standard Error		0.5	0.9	0.1	0.2	0.7	
Number		918	44,065	57	115	2,123	47,278

Statistical Week 32 (August 5 - 11)							
Male							
Sample Number		14	369	1		24	408
Percent		1.8	47.1	0.1		3.0	52.0
Standard Error		0.5	1.8	0.1		0.6	1.8
Number		679	17,884	48		1,163	19,774
Female							
Sample Number		7	338			31	376
Percent		0.9	43.1			4.0	48.0
Standard Error		0.3	1.8			0.7	1.8
Number		339	16,381			1,503	18,223
Sexes Combined							
Sample Number		21	707	1		55	784
Percent		2.7	90.2	0.1		7.0	100.0
Standard Error		0.6	1.1	0.1		0.9	
Number		1,018	34,265	48		2,666	37,997

Statistical Week 33 (August 12 - 18)							
Male							
Sample Number		12	237	1	1	24	275
Percent		2.5	48.7	0.2	0.2	4.9	56.5
Standard Error		0.7	2.3	0.2	0.2	1.0	2.2
Number		510	10,067	42	42	1,019	11,680
Female							
Sample Number		2	186	2		22	212
Percent		0.4	38.2	0.4		4.5	43.5
Standard Error		0.3	2.2	0.3		0.9	2.2
Number		85	7,900	85		935	9,005
Sexes Combined							
Sample Number		14	423	3	1	46	487
Percent		2.9	86.9	0.6	0.2	9.4	100.0
Standard Error		0.8	1.5	0.4	0.2	1.3	
Number		595	17,967	127	42	1,954	20,685

Statistical Week 34 (August 19 - 25)							
Male							
Sample Number		12	273		2	43	331
Percent		2.0	44.9		0.3	7.0	54.4
Standard Error		0.6	2.0		0.2	1.0	2.0
Number		314	7,140		52	1,125	8,657
Female							
Sample Number		10	238	1	1	26	277
Percent		1.6	39.1	0.2	0.2	4.3	45.6
Standard Error		0.5	2.0	0.2	0.2	0.8	2.0
Number		262	6,225	26	26	680	7,245
Sexes Combined							
Sample Number		22	511	1	3	69	608
Percent		3.6	84.0	0.2	0.5	11.3	100.0
Standard Error		0.8	1.5	0.2	0.3	1.3	
Number		576	13,365	26	78	1,805	15,902

-Continued-

Appendix Table 3. Age composition of Chilkooot River fish harvested in 1984, by statistical week and sex (continued).

		Brood Year and Age Class						
		1980	1979	1978		1977		Total
		1.2	1.3	2.2	1.4	2.3	2.4	

Statistical Week 35 (August 26 - Sept. 1)								
Male								
Sample Number		4	220	1	1	43	1	270
Percent		0.8	43.6	0.2	0.2	8.5	0.2	53.5
Standard Error		0.4	2.2	0.2	0.2	1.2	0.2	2.2
Number		78	4,314	20	20	843	20	5,295
Female								
Sample Number			210			25		235
Percent			41.7			5.0		46.5
Standard Error			2.2			1.0		2.2
Number			4,118			490		4,608
Sexes Combined								
Sample Number		4	430	1	1	68	1	505
Percent		0.8	85.1	0.2	0.2	13.5	0.2	100.0
Standard Error		0.4	1.6	0.2	0.2	1.5	0.2	2.2
Number		78	8,432	20	20	1,333	20	9,903

Statistical Week 36 (Sept. 2 - 8)								
Male								
Sample Number		6	128	1	2	28	1	166
Percent		2.5	52.3	0.4	0.8	11.4	0.4	67.8
Standard Error		1.0	3.2	0.4	0.6	2.0	0.4	3.0
Number		73	1,557	12	24	341	12	2,019
Female								
Sample Number		1	67			10	1	79
Percent		0.4	27.3			4.1	0.4	32.2
Standard Error		0.4	2.9			1.3	0.4	3.0
Number		12	815			122	12	961
Sexes Combined								
Sample Number		7	195	1	2	38	2	245
Percent		2.9	79.6	0.4	0.8	15.5	0.8	100.0
Standard Error		1.1	2.6	0.4	0.6	2.3	0.6	3.0
Number		85	2,372	12	24	463	24	2,980

Statistical Week 37 (Sept. 9 - 15)								
Male								
Sample Number		2	35		1	11	5	54
Percent		2.4	41.1		1.2	12.9	5.9	63.5
Standard Error		1.7	5.4		1.2	3.7	2.6	5.3
Number		9	150		4	48	22	233
Female								
Sample Number			27			4		31
Percent			31.8			4.7		36.5
Standard Error			5.1			2.3		5.3
Number			117			17		134
Sexes Combined								
Sample Number		2	62		1	15	5	85
Percent		2.4	72.9		1.2	17.6	5.9	100.0
Standard Error		1.7	4.8		1.2	4.2	2.6	5.3
Number		9	267		4	65	22	367

Statistical Weeks 38 - 42 (Sept. 16 - Oct. 20)								
Male								
Sample Number			5			1		6
Percent			50.0			10.0		60.0
Standard Error			16.7			10.0		16.3
Number			87			17		104
Female								
Sample Number		1	3					4
Percent		10.0	30.0					40.0
Standard Error		10.0	15.3					16.3
Number		17	52					69
Sexes Combined								
Sample Number		1	8			1		10
Percent		10.0	80.0			10.0		100.0
Standard Error		10.0	13.3			10.0		16.3
Number		17	139			17		173

Combined Periods (Percentages are weighted by period catches)								
Male								
Sample Number		107	3,212	6	14	264	10	3,613
Percent		1.6	48.0	0.1	0.1	3.2	<0.1	53.1
Standard Error		0.2	0.7	<0.1	<0.1	0.2	<0.1	0.7
Number		3,744	111,331	147	318	7,426	101	123,067
Female								
Sample Number		44	2,858	4	4	189	2	3,101
Percent		0.7	43.3	0.1	<0.1	2.7	<0.1	46.9
Standard Error		0.1	0.7	<0.1	<0.1	0.2	<0.1	0.7
Number		1,596	100,444	168	108	6,371	38	108,725
Sexes Combined								
Sample Number		151	6,070	10	18	453	12	6,714
Percent		2.3	91.4	0.1	0.2	6.0	0.1	100.0
Standard Error		0.2	0.4	<0.1	0.1	0.3	<0.1	0.7
Number		5,340	211,775	315	426	13,797	139	231,792

Mean date of catch		8/2	7/31	8/9	8/2	8/7	8/19	7/31
Standard Error (Days)		14.7	15.1	16.1	21.2	16.4	26.5	15.3

Appendix Table 4. Age composition of Chilkat River fish harvested in 1984, by statistical week and sex.

Brood Year and Age Class																					
1981		1980		1979		1978		1977		Total											
0.2		0.3		1.2		1.3		2.2		1.4		2.3		3.2		2.4		3.3		Total	
Statistical Week 25 (June 17 - 23)																					
Male																					
Sample Number		15				79		1				19								114	
Percent		5.6				29.9		0.4				7.2								43.2	
Standard Error		1.4				2.8		0.4				1.6								3.1	
Number		148				779		10				187								1,124	
Female																					
Sample Number		21				108		2				19								150	
Percent		8.0				40.9		0.8				7.2								56.8	
Standard Error		1.7				3.0		0.5				1.6								3.1	
Number		207				1,065		20				187								1,479	
Sexes Combined																					
Sample Number		36				187		3				38								264	
Percent		13.6				70.8		1.2				14.4								100.0	
Standard Error		2.1				2.8		0.7				2.2									
Number		355				1,844		30				374								2,603	
Statistical Week 26 (June 24 - 30)																					
Male																					
Sample Number		14				117		1				26								158	
Percent		3.8				31.7		0.3				7.0								42.8	
Standard Error		1.0				2.4		0.3				1.3								2.6	
Number		205				1,719		15				382								2,321	
Female																					
Sample Number		21				149		3				38								211	
Percent		5.7				40.4		0.8				10.3								57.2	
Standard Error		1.2				2.6		0.5				1.6								2.6	
Number		309				2,189		44				558								3,100	
Sexes Combined																					
Sample Number		35				266		4				64								369	
Percent		9.5				72.1		1.1				17.3								100.0	
Standard Error		1.5				2.3		0.5				2.0									
Number		514				3,908		59				940								5,421	
Statistical Week 27 (July 1 - 7)																					
Male																					
Sample Number		23				149		2				36								213	
Percent		4.8		0.6		31.2		0.4				7.5								44.5	
Standard Error		1.0		0.4		2.1		0.3				1.2								2.3	
Number		297		39		1,925		25				465								2,751	
Female																					
Sample Number		15		1		188		4				58								266	
Percent		3.1		0.2		39.2		0.9				12.1								55.5	
Standard Error		0.8		0.2		2.2		0.4				1.5								2.3	
Number		194		13		2,428		52				749								3,436	
Sexes Combined																					
Sample Number		38		4		337		6				94								479	
Percent		7.9		0.8		70.4		1.3				19.6								100.0	
Standard Error		1.2		0.4		2.1		0.5				1.8									
Number		491		52		4,353		77				1,214								6,187	
Statistical Week 28 (July 8 - 14)																					
Male																					
Sample Number		13		3		114		3				25								158	
Percent		4.2		1.0		36.6		1.0				8.0								50.8	
Standard Error		1.1		0.6		2.7		0.6				1.5								2.8	
Number		216		50		1,896		50				416								2,628	
Female																					
Sample Number		10				117		5				21								153	
Percent		3.2				37.6		1.6				6.8								49.2	
Standard Error		1.0				2.8		0.7				1.4								2.8	
Number		167				1,946		83				349								2,545	
Sexes Combined																					
Sample Number		23		3		231		8				46								311	
Percent		7.4		1.0		74.2		2.6				14.8								100.0	
Standard Error		1.5		0.6		2.5		0.9				2.0									
Number		383		50		3,842		133				765								5,173	
Statistical Week 29 (July 15 - 21)																					
Male																					
Sample Number		4		2		82		1				23								112	
Percent		1.7		0.8		33.9		0.4				9.5								46.3	
Standard Error		0.8		0.6		3.0		0.4				1.9								3.2	
Number		155		77		3,172		39				890								4,333	
Female																					
Sample Number		4				90		6				30								130	
Percent		1.6				37.2		2.5				12.4								53.7	
Standard Error		0.8				3.1		1.0				2.1								3.2	
Number		154				3,481		232				1,160								5,027	
Sexes Combined																					
Sample Number		8		2		172		7				53								242	
Percent		3.3		0.8		71.1		2.9				21.9								100.0	
Standard Error		1.2		0.6		2.9		1.1				2.7									
Number		309		77		6,653		271				2,050								9,360	

-Continued-

Appendix Table 4. Age composition of Chilkat River fish harvested in 1984, by statistical week and sex (continued).

		Brood Year and Age Class										
		1981	1980		1979		1978			1977		
		0.2	0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Week 30 (July 22 - 28)												
Male												
Sample Number			8	2	63	5	1	11				90
Percent			4.3	1.1	33.9	2.7	0.5	5.9				48.4
Standard Error			1.5	0.8	3.5	1.2	0.5	1.7				3.7
Number			374	93	2,946	234	47	514				4,208
Female												
Sample Number			4	1	63	7		20		1		96
Percent			2.2	0.5	33.8	3.8		10.8		0.5		51.6
Standard Error			1.1	0.5	3.5	1.4		2.3		0.5		3.7
Number			187	47	2,946	327		935		47		4,489
Sexes Combined												
Sample Number			12	3	126	12	1	31		1		186
Percent			6.5	1.6	67.7	6.5	0.5	16.7		0.5		100.0
Standard Error			1.8	0.9	3.4	1.8	0.5	2.7		0.5		
Number			561	140	5,892	561	47	1,449		47		8,697
Statistical Week 31 (July 29 - August 4)												
Male												
Sample Number			3		35	20		19				77
Percent			1.7		19.4	11.1		10.6				42.8
Standard Error			1.0		3.0	2.3		2.3				3.7
Number			151		1,764	1,008		958				3,881
Female												
Sample Number			11	1	37	27		27				103
Percent			6.1	0.6	20.5	15.0		15.0				57.2
Standard Error			1.8	0.6	3.0	2.7		2.7				3.7
Number			554	50	1,865	1,361		1,361				5,191
Sexes Combined												
Sample Number			14	1	72	47		46				180
Percent			7.8	0.6	39.9	26.1		25.6				100.0
Standard Error			2.0	0.6	3.7	3.3		3.3				
Number			706	50	3,629	2,369		2,318				9,072
Statistical Week 32 (August 5 - 11)												
Male												
Sample Number			6	2	51	47		30				136
Percent			2.1	0.7	18.1	16.7		10.6				48.2
Standard Error			0.9	0.5	2.3	2.2		1.8				3.0
Number			268	89	2,278	2,101		1,340				6,076
Female												
Sample Number			6	2	44	47		47				146
Percent			2.1	0.7	15.6	16.7		16.7				51.8
Standard Error			0.9	0.5	2.2	2.2		2.2				3.0
Number			268	88	1,966	2,100		2,100				6,522
Sexes Combined												
Sample Number			12	4	95	94		77				282
Percent			4.3	1.4	33.7	33.3		27.3				100.0
Standard Error			1.2	0.7	2.8	2.8		2.7				
Number			536	179	4,244	4,199		3,440				12,598
Statistical Week 33 (August 12 - 18)												
Male												
Sample Number			4		52	143		43		1		243
Percent			0.9		11.3	31.1		9.4		0.2		52.9
Standard Error			0.4		1.5	2.2		1.4		0.2		2.3
Number			162		2,112	5,807		1,746		41		9,868
Female												
Sample Number			2		57	95		61		1		216
Percent			0.4		12.4	20.8		13.3		0.2		47.1
Standard Error			0.3		1.5	1.9		1.6		0.2		2.3
Number			81		2,315	3,858		2,477		41		8,772
Sexes Combined												
Sample Number			6		109	238		104		2		459
Percent			1.3		23.7	51.9		22.7		0.4		100.0
Standard Error			0.5		2.0	2.3		2.0		0.3		
Number			244		4,426	9,665		4,223		82		18,640
Statistical Week 34 (August 19 - 25)												
Male												
Sample Number			3		33	86		47	1			170
Percent			1.1		12.5	32.5		17.7	0.4			64.2
Standard Error			0.7		2.0	2.9		2.4	0.4			3.0
Number			73		805	2,098		1,146	24			4,146
Female												
Sample Number					24	37		34				95
Percent					9.0	14.0		12.8				35.8
Standard Error					1.8	2.1		2.1				3.0
Number					585	903		829				2,317
Sexes Combined												
Sample Number			3		57	123		81	1			265
Percent			1.1		21.5	46.5		30.5	0.4			100.0
Standard Error			0.7		2.5	3.1		2.8	0.4			
Number			73		1,390	3,001		1,975	24			6,463

-Continued-

Appendix Table 4. Age composition of Chilkat River fish harvested in 1984, by statistical week and sex (continued).

Brood Year and Age Class											
	1981	1980		1979		1978			1977		Total
	0.2	0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	
Statistical Week 35 (August 26 - Sept. 1)											
Male											
Sample Number		4	1	42	81		107				235
Percent		1.1	0.3	11.7	22.6		29.8				65.5
Standard Error		0.6	0.3	1.7	2.2		2.4				2.5
Number		74	19	779	1,502		1,984				4,358
Female											
Sample Number	1	2		24	44		52	1			124
Percent	0.3	0.6		6.6	12.2		14.5	0.3			34.5
Standard Error	0.3	0.4		1.3	1.7		1.9	0.3			2.5
Number	19	37		445	816		964	19			2,300
Sexes Combined											
Sample Number	1	6	1	66	125		159	1			359
Percent	0.3	1.7	0.3	18.3	34.8		44.3	0.3			100.0
Standard Error	0.3	0.7	0.3	2.0	2.5		2.6	0.3			2.5
Number	19	111	19	1,224	2,318		2,948	19			6,658
Statistical Week 36 (Sept. 2 - 8)											
Male											
Sample Number		2		42	84		164				292
Percent		0.5		10.0	20.0		39.0				69.5
Standard Error		0.3		1.5	2.0		2.4				2.2
Number		24		495	989		1,931				3,439
Female											
Sample Number		2		16	48		62				128
Percent		0.5		3.8	11.4		14.8				30.5
Standard Error		0.3		0.9	1.6		1.7				2.2
Number		24		188	565		730				1,507
Sexes Combined											
Sample Number		4		58	132		226				420
Percent		1.0		13.8	31.4		53.8				100.0
Standard Error		0.5		1.7	2.3		2.4				2.4
Number		48		683	1,554		2,661				4,946
Statistical Week 37 (Sept. 9 - 15)											
Male											
Sample Number				51	180		436	1		1	669
Percent				5.4	18.9		45.7	0.1		0.1	70.2
Standard Error				0.7	1.3		1.6	0.1		0.1	1.5
Number				214	755		1,829	4		4	2,806
Female											
Sample Number			1	24	100		158			1	284
Percent			0.1	2.5	10.5		16.6			0.1	29.8
Standard Error			0.1	0.5	1.0		1.2			0.1	1.5
Number			4	101	419		663			4	1,191
Sexes Combined											
Sample Number			1	75	280		594	1		2	953
Percent			0.1	7.9	29.4		62.3	0.1		0.2	100.0
Standard Error			0.1	0.9	1.5		1.6	0.1		0.1	1.5
Number			4	315	1,174		2,492	4		8	3,997
Statistical Weeks 38 - 42 (Sept. 16 - Oct. 20)											
Male											
Sample Number				9	51		68				128
Percent				5.6	31.4		42.0				79.0
Standard Error				1.8	3.7		3.9				3.2
Number				154	870		1,161				2,185
Female											
Sample Number				2	12		20				34
Percent				1.2	7.5		12.3				21.0
Standard Error				0.9	2.1		2.6				3.2
Number				34	206		341				581
Sexes Combined											
Sample Number				11	63		88				162
Percent				6.8	38.9		54.3				100.0
Standard Error				2.0	3.8		3.9				3.2
Number				188	1,076		1,502				2,766
Combined Periods (Percentages are weighted by period catches)											
Male											
Sample Number		99	13	919	705	1	1,054	2		2	2,795
Percent		2.1	0.4	20.5	15.1	<0.1	14.6	<0.1		<0.1	52.8
Standard Error		0.2	0.1	0.7	0.6	<0.1	0.5	<0.1		<0.0	0.9
Number		2,147	367	21,038	15,503	47	14,949	28		45	54,124
Female											
Sample Number	1	98	6	943	437		647	1	1	2	2,136
Percent	<0.1	2.1	0.2	21.0	10.7		13.1	<0.1	<0.1	<0.1	47.2
Standard Error	<0.1	0.3	0.1	0.7	0.6		0.6	<0.1	<0.1	<0.1	0.9
Number	19	2,182	202	21,554	10,986		13,403	19	47	45	48,457
Sexes Combined											
Sample Number	1	197	19	1,862	1,142	1	1,701	3	1	4	4,931
Percent	<0.1	4.2	0.6	41.5	25.8	<0.1	27.6	<0.1	<0.1	0.1	100.0
Standard Error	<0.1	0.3	0.1	0.8	0.7	<0.1	0.7	<0.1	<0.1	0.1	0.9
Number	19	4,329	569	42,592	26,489	47	28,352	47	47	90	102,581
Mean Date of Catch	8/28	7/20	7/27	7/23	8/17	7/25	8/14	8/26	7/25	8/17	8/4
Standard Error	0.0	19.1	13.5	19.7	14.2	0.0	23.3	6.0	0.0	8.0	22.6

Appendix Table 5. Chilkat Lake weir counts of sockeye salmon and associated statistics, 1984¹/.

Date		Daily Count	Cumulative Count	Daily Percent Of Total	Cumulative Percent
JUNE	9	0	0	0.00	0.00
JUNE	10	0	0	0.00	0.00
JUNE	11	0	0	0.00	0.00
JUNE	12	0	0	0.00	0.00
JUNE	13	0	0	0.00	0.00
JUNE	14	0	0	0.00	0.00
JUNE	15	0	0	0.00	0.00
JUNE	16	0	0	0.00	0.00
JUNE	17	0	0	0.00	0.00
JUNE	18	16	16	0.01	0.01
JUNE	19	12	28	0.01	0.02
JUNE	20	49	77	0.04	0.07
JUNE	21	150	227	0.13	0.20
JUNE	22	0	227	0.00	0.20
JUNE	23	75	302	0.07	0.26
JUNE	24	71	373	0.06	0.32
JUNE	25	0	373	0.00	0.32
JUNE	26	0	373	0.00	0.32
JUNE	27	231	604	0.20	0.52
JUNE	28	37	641	0.03	0.56
JUNE	29	411	1052	0.36	0.91
JUNE	30	691	1743	0.60	1.51
JULY	1	366	2109	0.32	1.83
JULY	2	2176	4285	1.89	3.72
JULY	3	374	4659	0.32	4.04
JULY	4	985	5644	0.85	4.90
JULY	5	1491	7135	1.29	6.19
JULY	6	3	7138	0.00	6.19
JULY	7	41	7179	0.04	6.23
JULY	8	0	7179	0.00	6.23
JULY	9	0	7179	0.00	6.23
JULY	10	0	7179	0.00	6.23
JULY	11	0	7179	0.00	6.23
JULY	12	143	7322	0.12	6.35
JULY	13	309	7631	0.27	6.62
JULY	14	171	7802	0.15	6.77
JULY	15	3	7805	0.00	6.77
JULY	16	3	7808	0.00	6.77
JULY	17	267	8075	0.23	7.01
JULY	18	670	8745	0.58	7.59
JULY	19	572	9317	0.50	8.08
JULY	20	1070	10387	0.93	9.01
JULY	21	695	11082	0.60	9.61
JULY	22	931	12013	0.81	10.42
JULY	23	588	12601	0.51	10.93
JULY	24	1603	14204	1.39	12.32
JULY	25	731	14935	0.63	12.96
JULY	26	1328	16263	1.15	14.11
JULY	27	670	16933	0.58	14.69
JULY	28	160	17093	0.14	14.83
JULY	29	0	17093	0.00	14.83
JULY	30	174	17267	0.15	14.98

-Continued-

Appendix Table 5. Chilkat Lake weir counts of sockeye salmon and associated statistics, 1984^{1/} (continued).

Date		Daily Count	Cumulative Count	Daily Percent of Total	Cumulative Percent
JULY	31	121	17388	0.10	15.08
AUG.	1	126	17514	0.11	15.19
AUG.	2	156	17670	0.14	15.33
AUG.	3	352	18022	0.31	15.63
AUG.	4	0	18022	0.00	15.63
AUG.	5	0	18022	0.00	15.63
AUG.	6	0	18022	0.00	15.63
AUG.	7	0	18022	0.00	15.63
AUG.	8	20	18042	0.02	15.65
AUG.	9	71	18113	0.06	15.71
AUG.	10	3	18116	0.00	15.72
AUG.	11	47	18163	0.04	15.76
AUG.	12	38	18201	0.03	15.79
AUG.	13	92	18293	0.08	15.87
AUG.	14	218	18511	0.19	16.06
AUG.	15	158	18669	0.14	16.20
AUG.	16	910	19579	0.79	16.99
AUG.	17	1513	21092	1.31	18.30
AUG.	18	42	21134	0.04	18.33
AUG.	19	56	21190	0.05	18.38
AUG.	20	7	21197	0.01	18.39
AUG.	21	567	21764	0.49	18.88
AUG.	22	637	22401	0.55	19.43
AUG.	23	135	22536	0.12	19.55
AUG.	24	15	22551	0.01	19.56
AUG.	25	0	22551	0.00	19.56
AUG.	26	0	22551	0.00	19.56
AUG.	27	0	22551	0.00	19.56
AUG.	28	432	22983	0.37	19.94
AUG.	29	661	23644	0.57	20.51
AUG.	30	3785	27429	3.28	23.80
AUG.	31	5209	32638	4.52	28.31
SEPT.	1	4812	37450	4.17	32.49
SEPT.	2	2378	39828	2.06	34.55
SEPT.	3	3755	43583	3.26	37.81
SEPT.	4	478	44061	0.41	38.22
SEPT.	5	3037	47098	2.63	40.86
SEPT.	6	3585	50683	3.11	43.97
SEPT.	7	1764	52447	1.53	45.50
SEPT.	8	3018	55465	2.62	48.12
SEPT.	9	1838	57303	1.59	49.71
SEPT.	10	1619	58922	1.40	51.12
SEPT.	11	2312	61234	2.01	53.12
SEPT.	12	4673	65907	4.05	57.18
SEPT.	13	2586	68493	2.24	59.42
SEPT.	14	2241	70734	1.94	61.36
SEPT.	15	3243	73977	2.81	64.18
SEPT.	16	913	74890	0.79	64.97
SEPT.	17	905	75795	0.79	65.75
SEPT.	18	4553	80348	3.95	69.70
SEPT.	19	2058	82406	1.79	71.49
SEPT.	20	4210	86616	3.65	75.14
SEPT.	21	3657	90273	3.17	78.32

-Continued-

Appendix Table 5. Chilkat Lake weir counts of sockeye salmon and associated statistics, 1984^{1/} (continued).

Date		Daily Count	Cumulative Count	Daily Percent of Total	Cumulative Percent
SEPT.	22	4810	95083	4.17	82.49
SEPT.	23	6619	101702	5.74	88.23
SEPT.	24	1922	103624	1.67	89.90
SEPT.	25	3097	106721	2.69	92.58
SEPT.	26	1254	107975	1.09	93.67
SEPT.	27	1727	109702	1.50	95.17
SEPT.	28	1103	110805	0.96	96.13
SEPT.	29	1788	112593	1.55	97.68
SEPT.	30	565	113158	0.49	98.17
OCT.	1	58	113216	0.05	98.22
OCT.	2	323	113539	0.28	98.50
OCT.	3	657	114196	0.57	99.07
OCT.	4	327	114523	0.28	99.35
OCT.	5	108	114631	0.09	99.45
OCT.	6	214	114845	0.19	99.63
OCT.	7	424	115269	0.37	100.00
OCT.	8	0	115269	0.00	100.00
OCT.	9	0	115269	0.00	100.00
OCT.	10	0	115269	0.00	100.00
Mean Day of Migration = SEPT. 3		Standard Error = 24.3 DAYS			

1/ McGregor and McPherson. 1986

Appendix Table 6. Chilkoot Lake weir counts of sockeye salmon and associated statistics, 1984^{1/}.

Date		Daily Count	Cumulative Count	Daily Percent of Total	Cumulative Percent
JUNE	4	18	18	0.02	0.02
JUNE	5	22	40	0.02	0.04
JUNE	6	60	100	0.06	0.10
JUNE	7	66	166	0.07	0.17
JUNE	8	34	200	0.03	0.20
JUNE	9	133	333	0.13	0.33
JUNE	10	231	564	0.23	0.56
JUNE	11	808	1372	0.80	1.37
JUNE	12	217	1589	0.22	1.58
JUNE	13	229	1818	0.23	1.81
JUNE	14	250	2068	0.25	2.06
JUNE	15	613	2681	0.61	2.67
JUNE	16	1001	3682	1.00	3.67
JUNE	17	1605	5287	1.60	5.27
JUNE	18	1093	6380	1.09	6.35
JUNE	19	2706	9086	2.69	9.05
JUNE	20	1803	10889	1.80	10.84
JUNE	21	903	11792	0.90	11.74
JUNE	22	279	12071	0.28	12.02
JUNE	23	2711	14782	2.70	14.72
JUNE	24	1127	15909	1.12	15.84
JUNE	25	1649	17558	1.64	17.49
JUNE	26	2163	19721	2.15	19.64
JUNE	27	1103	20824	1.10	20.74
JUNE	28	112	20936	0.11	20.85
JUNE	29	579	21515	0.58	21.43
JUNE	30	711	22226	0.71	22.13
JULY	1	1175	23401	1.17	23.30
JULY	2	403	23804	0.40	23.71
JULY	3	889	24693	0.89	24.59
JULY	4	516	25209	0.51	25.10
JULY	5	804	26013	0.80	25.90
JULY	6	242	26255	0.24	26.15
JULY	7	377	26632	0.38	26.52
JULY	8	93	26725	0.09	26.61
JULY	9	2017	28742	2.01	28.62
JULY	10	1108	29850	1.10	29.73
JULY	11	1670	31520	1.66	31.39
JULY	12	2505	34025	2.49	33.88
JULY	13	1177	35202	1.17	35.06
JULY	14	1423	36625	1.42	36.47
JULY	15	908	37533	0.90	37.38
JULY	16	524	38057	0.52	37.90
JULY	17	565	38622	0.56	38.46
JULY	18	1224	39846	1.22	39.68
JULY	19	1488	41334	1.48	41.16
JULY	20	1197	42531	1.19	42.35
JULY	21	832	43363	0.83	43.18
JULY	22	1177	44540	1.17	44.36
JULY	23	4220	48760	4.20	48.56
JULY	24	1465	50225	1.46	50.02
JULY	25	964	51189	0.96	50.98

-Continued-

Appendix Table 6. Chilkoot Lake weir counts of sockeye salmon and associated statistics, 1984^{1/} (continued).

Date		Daily Count	Cumulative Count	Daily Percent of Total	Cumulative Percent
JULY	26	1109	52298	1.10	52.08
JULY	27	1936	54234	1.93	54.01
JULY	28	1046	55280	1.04	55.05
JULY	29	1674	56954	1.67	56.72
JULY	30	2619	59573	2.61	59.33
JULY	31	1890	61463	1.88	61.21
AUG.	1	412	61875	0.41	61.62
AUG.	2	549	62424	0.55	62.16
AUG.	3	850	63274	0.85	63.01
AUG.	4	1616	64890	1.61	64.62
AUG.	5	1927	66817	1.92	66.54
AUG.	6	1965	68782	1.96	68.50
AUG.	7	2113	70895	2.10	70.60
AUG.	8	778	71673	0.77	71.38
AUG.	9	1013	72686	1.01	72.38
AUG.	10	105	72791	0.10	72.49
AUG.	11	119	72910	0.12	72.61
AUG.	12	226	73136	0.23	72.83
AUG.	13	453	73589	0.45	73.28
AUG.	14	340	73929	0.34	73.62
AUG.	15	583	74512	0.58	74.20
AUG.	16	635	75147	0.63	74.83
AUG.	17	1397	76544	1.39	76.23
AUG.	18	1888	78432	1.88	78.11
AUG.	19	4427	82859	4.41	82.51
AUG.	20	4041	86900	4.02	86.54
AUG.	21	1141	88041	1.14	87.68
AUG.	22	277	88318	0.28	87.95
AUG.	23	356	88674	0.35	88.31
AUG.	24	371	89045	0.37	88.68
AUG.	25	572	89617	0.57	89.24
AUG.	26	544	90161	0.54	89.79
AUG.	27	614	90775	0.61	90.40
AUG.	28	446	91221	0.44	90.84
AUG.	29	621	91842	0.62	91.46
AUG.	30	531	92373	0.53	91.99
AUG.	31	291	92664	0.29	92.28
SEPT.	1	388	93052	0.39	92.67
SEPT.	2	447	93499	0.45	93.11
SEPT.	3	1501	95000	1.49	94.61
SEPT.	4	753	95753	0.75	95.36
SEPT.	5	684	96437	0.68	96.04
SEPT.	6	461	96898	0.46	96.50
SEPT.	7	484	97382	0.48	96.98
SEPT.	8	144	97526	0.14	97.12
SEPT.	9	921	98447	0.92	98.04
SEPT.	10	1116	99563	1.11	99.15
SEPT.	11	477	100040	0.48	99.62
SEPT.	12	377	100417	0.38	100.00

Mean Day of Migration = JULY 25 Standard Error = 24.7 DAYS

1/ McGregor and McPherson. 1986

Appendix Table 7. Age composition of the Chilkat Lake escapement, by statistical week and sex, 1984.

Brood Year and Age Class												
	1981		1980		1979		1978		1977			Total
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	
Statistical Weeks 25 and 26 (June 17 - 30)												
Male												
Sample Number			1		12			1				14
Percent			3.6		42.9			3.5				50.0
Std. Error			3.6		9.5			3.6				9.6
Number			62		747			62				872
Female												
Sample Number					13			1				14
Percent					46.4			3.6				50.0
Std. Error					9.6			3.6				9.6
Number					809			62				871
Sexes Combined												
Sample Number			1		25			2				28
Percent			3.6		89.3			7.1				100.0
Std. Error			3.6		6.0			5.0				
Number			62		1,556			125				1,743
Statistical Week 27 (July 1 - 7)												
Male												
Sample Number	1	1	3		44			15				64
Percent	0.8	0.8	2.2		33.0			11.3				48.1
Std. Error	0.8	0.8	1.3		4.1			2.8				4.3
Number	41	41	122		1,799			613				2,616
Female												
Sample Number			1		51			17				69
Percent			0.8		38.3			12.8				51.9
Std. Error			0.8		4.2			2.9				4.3
Number			41		2,084			695				2,820
Sexes Combined												
Sample Number	1	1	4		95			32				133
Percent	0.8	0.8	3.0		71.3			24.1				100.0
Std. Error	0.8	0.8	1.5		3.9			3.7				
Number	41	41	163		3,883			1,308				5,436
Statistical Week 28 (July 8 - 14)												
Male												
Sample Number			1		16			4				21
Percent			2.6		41.0			10.3				53.8
Std. Error			2.6		8.0			4.9				8.1
Number			16		255			64				335
Female												
Sample Number					12	1		5				18
Percent					30.8	2.6		12.8				46.2
Std. Error					7.5	2.6		5.4				8.1
Number					192	16		80				288
Sexes Combined												
Sample Number			1		28	1		9				39
Percent			2.6		71.8	2.6		23.1				100.0
Std. Error			2.6		7.3	2.6		6.8				
Number			16		447	16		144				623
Statistical Week 29 (July 15 - 21)												
Male												
Sample Number			1	1	21			6				29
Percent			2.1	2.1	44.7			12.8				61.7
Std. Error			2.1	2.1	7.3			4.9				7.2
Number			70	70	1,464			419				2,023
Female												
Sample Number					15	1	1	1				18
Percent					32.0	2.1	2.1	2.1				38.3
Std. Error					6.9	2.1	2.1	2.1				7.2
Number					1,047	70	70	70				1,257
Sexes Combined												
Sample Number			1	1	36	1	1	7				47
Percent			2.1	2.1	76.7	2.1	2.1	14.9				100.0
Std. Error			2.1	2.1	6.2	2.1	2.1	5.2				
Number			70	70	2,511	70	70	489				3,280
Statistical Weeks 30 - 32 (July 22 - August 11)												
Male												
Sample Number			3		100	3		23		1		130
Percent			1.5		49.5	1.5		11.4		0.5		64.4
Std. Error			0.9		3.5	0.9		2.2		0.5		3.4
Number			106		3,503	106		806		36		4,557
Female												
Sample Number					57			15				72
Percent					28.2			7.4				35.6
Std. Error					3.2			1.8				3.4
Number					1,998			526				2,524
Sexes Combined												
Sample Number			3		157	3		38		1		202
Percent			1.5		77.7	1.5		18.8		0.5		100.0
Std. Error			0.9		2.9	0.9		2.8		0.5		
Number			106		5,501	106		1,332		36		7,081

-Continued-

Appendix Table 7. Age composition of the Chilkat Lake escapement, by statistical week and sex, 1984 (continued).

Brood Year and Age Class													
	1981		1980		1979			1978			1977		
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total	
Statistical Week 33 (August 12 - 18)													
Male													
Sample Number					10	6		8				24	
Percent					25.6	15.4		20.5				61.5	
Std. Error					7.1	5.9		6.6				7.9	
Number					762	457		609				1,828	
Female													
Sample Number					10	1		4				15	
Percent					25.6	2.6		10.3				38.5	
Std. Error					7.1	2.6		4.9				7.9	
Number					762	76		305				1,143	
Sexes Combined													
Sample Number					20	7		12				39	
Percent					51.3	17.9		30.8				100.0	
Std. Error					8.1	6.2		7.5					
Number					1,524	533		914				2,971	
Statistical Week 34 (August 19 - 25)													
Male													
Sample Number			1	3	23	23		10				60	
Percent			1.1	3.3	25.6	25.6		11.1				66.7	
Std. Error			1.1	1.9	4.6	4.6		3.3				5.0	
Number			15	47	363	362		157				944	
Female													
Sample Number			1		17	8		4				30	
Percent			1.1		18.9	8.9		4.4				33.3	
Std. Error			1.1		4.1	3.0		2.2				5.0	
Number			16		268	126		63				473	
Sexes Combined													
Sample Number			2	3	40	31		14				90	
Percent			2.2	3.3	44.5	34.5		15.5				100.0	
Std. Error			1.6	1.9	5.3	5.0		3.8					
Number			31	47	631	488		220				1,417	
Statistical Week 35 (August 26 - Sept. 1)													
Male													
Sample Number	1		4	4	27	49		22				107	
Percent	0.6		2.5	2.5	16.8	30.4		13.7				66.5	
Std. Error	0.6		1.2	1.2	3.0	3.6		2.7				3.7	
Number	93		370	370	2,499	4,534		2,036				9,902	
Female													
Sample Number			2		10	37		5				54	
Percent			1.2		6.2	23.0		3.1				33.5	
Std. Error			0.9		1.9	3.3		1.4				3.7	
Number			185		925	3,424		463				4,997	
Sexes Combined													
Sample Number	1		6	4	37	86		27				161	
Percent	0.6		3.7	2.5	23.0	53.4		16.8				100.0	
Std. Error	0.6		1.5	1.2	3.3	3.9		3.0					
Number	93		555	370	3,424	7,958		2,499				14,899	
Statistical Week 36 (Sept. 2 - 8)													
Male													
Sample Number			5	18	32	210		60				325	
Percent			0.9	3.2	5.7	37.6		10.7				58.1	
Std. Error			0.4	0.7	1.0	2.1		1.3				2.1	
Number			161	580	1,031	6,768		1,934				10,474	
Female													
Sample Number			3		18	178		35				234	
Percent			0.5		3.2	31.9		6.3				41.9	
Std. Error			0.3		0.7	2.0		1.0				2.1	
Number			97		580	5,736		1,128				7,541	
Sexes Combined													
Sample Number			8	18	50	388		95				559	
Percent			1.4	3.2	8.9	69.5		17.0				100.0	
Std. Error			0.5	0.7	1.2	2.0		1.6					
Number			258	580	1,611	12,504		3,062				18,015	
Statistical Week 37 (Sept. 9 - 15)													
Male													
Sample Number			5	4	50	176		89				324	
Percent			0.9	0.7	8.7	30.7		15.5				56.5	
Std. Error			0.4	0.3	1.2	1.9		1.5				2.1	
Number			161	129	1,612	5,677		2,870				10,449	
Female													
Sample Number			3	1	34	169		43				250	
Percent			0.5	0.2	5.9	29.4		7.5				43.5	
Std. Error			0.3	0.2	1.0	1.9		1.1				2.1	
Number			97	32	1,097	5,450		1,387				8,063	
Sexes Combined													
Sample Number			8	5	84	345		132				574	
Percent			1.4	0.9	14.6	60.1		23.0				100.0	
Std. Error			0.5	0.4	1.5	2.0		1.8					
Number			258	161	2,709	11,127		4,257				18,512	

-Continued-

Appendix Table 7. Age composition of the Chilkat Lake escapement, by statistical week and sex, 1984 (continued).

Brood Year and Age Class												
	1981		1980		1979		1978		1977			
	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Total
Statistical Week 38 (Sept. 16 - 22)												
Male												
Sample Number			2	5	13	175		43				238
Percent			0.4	1.1	2.7	37.0		9.1				50.3
Std. Error			0.3	0.5	0.8	2.2		1.3				2.3
Number			89	223	580	7,809		1,919				10,620
Female												
Sample Number			2		17	166		49	1			235
Percent			0.4		3.6	35.1		10.4	0.2			49.7
Std. Error			0.3		0.9	2.2		1.4	0.2			2.3
Number			89		759	7,407		2,186	45			10,486
Sexes Combined												
Sample Number			4	5	30	341		92	1			473
Percent			0.8	1.1	6.3	72.1		19.5	0.2			100.0
Std. Error			0.4	0.5	1.1	2.1		1.8	0.2			
Number			178	223	1,339	15,216		4,105	45			21,106
Statistical Week 39 (Sept. 23 - 29)												
Male												
Sample Number				6	3	102		34	3		1	149
Percent				1.7	0.9	29.6		9.8	0.9		0.3	43.2
Std. Error				0.7	0.5	2.5		1.6	0.5		0.3	2.7
Number				305	153	5,175		1,726	152		51	7,562
Female												
Sample Number			2		15	135		43	1			196
Percent			0.6		4.3	39.1		12.5	0.3			56.8
Std. Error			0.4		1.1	2.6		1.8	0.3			2.7
Number			102		761	6,852		2,182	51			9,948
Sexes Combined												
Sample Number			2	6	18	237		77	4		1	345
Percent			0.6	1.7	5.2	68.7		22.3	1.2		0.3	100.0
Std. Error			0.4	0.7	1.2	2.5		2.2	0.6		0.3	
Number			102	305	914	12,027		3,908	203		51	17,510
Statistical Weeks 40 and 41 (Sept. 30 - Oct. 10)												
Male												
Sample Number			1			8		3				12
Percent			2.6			21.1		7.9				31.6
Std. Error			2.6			6.7		4.4				7.6
Number			70			565		211				846
Female												
Sample Number					1	15		10				26
Percent					2.6	39.5		26.3				68.4
Std. Error					2.6	8.0		7.2				7.6
Number					70	1,056		704				1,830
Sexes Combined												
Sample Number			1		1	23		13				38
Percent			2.6		2.6	60.6		34.2				100.0
Std. Error			2.6		2.6	8.0		7.8				
Number			70		70	1,621		915				2,676
Periods Combined (Percentages are weighted by period escapements)												
Male												
Sample Number	2	1	27	41	351	752		318	3	1	1	1497
Percent	0.1	<0.1	1.1	1.5	12.9	27.3		11.7	0.1	<0.1	<0.1	54.7
Std. Error	0.1	<0.1	0.2	0.3	0.6	0.9		0.7	0.1	<0.1	<0.1	1.0
Number	134	41	1,242	1,724	14,678	31,453		13,427	152	36	51	63,030
Female												
Sample Number			14	1	270	711	1	232	2			1231
Percent			0.5	<0.1	9.8	26.2	0.1	8.5	0.1			45.3
Std. Error			0.2	<0.1	0.6	0.9	0.1	0.6	0.1			1.0
Number			627	32	11,352	30,213	70	9,851	96			52,240
Sexes Combined												
Sample Number	2	1	41	42	621	1463	1	550	5	1	1	2728
Percent	0.1	<0.1	1.6	1.5	22.7	53.5	0.1	20.2	0.2	<0.1	<0.1	100.0
Std. Error	0.1	<0.1	0.3	0.3	0.7	0.9	0.1	0.8	0.1	<0.1	<0.1	
Number	134	41	1,869	1,756	26,120	61,666	70	23,278	248	36	51	115,269
Mean Escapement Date	8/11	7/3	8/25	9/7	8/7	9/13	7/17	9/4	9/25	7/26	9/25	9/2
Standard Error (Days)	25.8	0.0	26.7	14.6	28.5	10.7	0.0	24.2	2.7	3.2	0.0	24.4

Appendix Table 8. Age composition of the Chilkoote Lake escapement, by statistical week and sex, 1984.

Brood Year and Age Class						
		1980	1979		1978	
		1.2	1.3	2.2	1.4	2.3

Statistical Week 23 (June 3 -- 9)						
Male						
Sample Number			2			2
Percent			18.2			18.2
Std. Error			12.2			12.2
Number			60			60
Female						
Sample Number			6		3	9
Percent			54.5		27.3	81.8
Std. Error			15.7		14.1	12.2
Number			182		91	273
Sexes Combined						
Sample Number			8		3	11
Percent			72.7		27.3	100.0
Std. Error			14.1		14.1	
Number			242		91	333

Statistical Week 24 (June 10 - 16)						
Male						
Sample Number			57		1	64
Percent			46.0		0.8	51.6
Std. Error			4.5		0.8	4.5
Number			1,540		27	1,729
Female						
Sample Number			56		4	60
Percent			45.2		3.2	48.4
Std. Error			4.5		1.6	4.5
Number			1,512		108	1,620
Sexes Combined						
Sample Number			113		10	124
Percent			91.1		8.1	100.0
Std. Error			2.6		2.5	
Number			3,052		270	3,349

Statistical Week 25 (June 17 - 23)						
Male						
Sample Number		4	67		1	77
Percent		2.2	36.8		0.5	42.3
Std. Error		1.1	3.6		0.5	3.7
Number		244	4,086		61	4,696
Female						
Sample Number			98		1	105
Percent			53.9		0.5	57.7
Std. Error			3.7		0.5	3.7
Number			5,977		61	6,404
Sexes Combined						
Sample Number		4	165		2	182
Percent		2.2	90.7		1.1	100.0
Std. Error		1.1	2.2		0.8	
Number		244	10,063		122	11,100

Statistical Week 26 (June 24 - 30)						
Male						
Sample Number		5	86	1		97
Percent		2.9	50.6	0.6		57.0
Std. Error		1.3	3.8	0.6		3.8
Number		219	3,766	44		4,248
Female						
Sample Number			69		4	73
Percent			40.6		2.4	43.0
Std. Error			3.8		1.2	3.8
Number			3,021		175	3,196
Sexes Combined						
Sample Number		5	155	1	9	170
Percent		2.9	91.2	0.6	5.3	100.0
Std. Error		1.3	2.2	0.6	1.7	
Number		219	6,787	44	394	7,444

Statistical Week 27 (July 1 - 7)						
Male						
Sample Number		1	83		5	89
Percent		0.6	53.2		3.2	57.1
Std. Error		0.6	4.0		1.4	4.0
Number		28	2,345		141	2,514
Female						
Sample Number		1	56		2	67
Percent		0.6	35.9		1.3	42.9
Std. Error		0.6	3.9		0.9	4.0
Number		28	1,582		56	1,892
Sexes Combined						
Sample Number		2	139		2	156
Percent		1.3	89.1		1.3	100.0
Std. Error		0.9	2.5		0.9	
Number		56	3,927		56	4,406

-Continued-

Appendix Table 8. Age composition of the Chilkoot Lake escapement, by statistical week and age, 1984 (continued).

		Brood Year and Age Class					
		1980	1979		1978		
		1.2	1.3	2.2	1.4	2.3	Total
<hr/>							
Statistical Week 28 (July 8 - 14)							
Male							
Sample Number	7	74				6	87
Percent	4.5	47.4				3.8	55.7
Std. Error	1.7	4.0				1.5	4.0
Number	448	4,740				385	5,573
Female							
Sample Number		65				4	69
Percent		41.7				2.6	44.3
Std. Error		4.0				1.3	4.0
Number		4,164				256	4,420
Sexes Combined							
Sample Number	7	139				10	156
Percent	4.5	89.1				6.4	100.0
Std. Error	1.7	2.5				2.0	
Number	448	8,904				641	9,993
<hr/>							
Statistical Week 29 (July 15 - 21)							
Male							
Sample Number	2	59			2	8	71
Percent	1.5	45.1			1.5	6.1	54.2
Std. Error	1.1	4.4			1.1	2.1	4.4
Number	103	3,035			103	411	3,652
Female							
Sample Number		58				2	60
Percent		44.3				1.5	45.8
Std. Error		4.4				1.1	4.4
Number		2,983				103	3,086
Sexes Combined							
Sample Number	2	117			2	10	131
Percent	1.5	89.4			1.5	7.6	100.0
Std. Error	1.1	2.7			1.1	2.3	
Number	103	6,018			103	514	6,738
<hr/>							
Statistical Week 30 (July 22 - 28)							
Male							
Sample Number	21	124		1		7	153
Percent	8.4	49.6		0.4		2.8	61.2
Std. Error	1.8	3.2		0.4		1.0	3.1
Number	1,001	5,911		47		333	7,292
Female							
Sample Number	4	88		1		4	97
Percent	1.6	35.2		0.4		1.6	38.8
Std. Error	0.8	3.0		0.4		0.8	3.1
Number	191	4,195		48		191	4,625
Sexes Combined							
Sample Number	25	212		2		11	250
Percent	10.0	84.8		0.8		4.4	100.0
Std. Error	1.9	2.3		0.6		1.3	
Number	1,192	10,106		95		524	11,917
<hr/>							
Statistical Week 31 (July 29 - August 4)							
Male							
Sample Number	13	118		1	1	5	138
Percent	5.5	49.6		0.4	0.4	2.1	58.0
Std. Error	1.5	3.2		0.4	0.4	0.9	3.2
Number	525	4,765		40	40	202	5,572
Female							
Sample Number		93				7	100
Percent		39.1				2.9	42.0
Std. Error		3.2				1.1	3.2
Number		3,755				283	4,038
Sexes Combined							
Sample Number	13	211		1	1	12	238
Percent	5.5	88.7		0.4	0.4	5.0	100.0
Std. Error	1.5	2.1		0.4	0.4	1.4	
Number	525	8,520		40	40	485	9,610
<hr/>							
Statistical Week 32 (August 5 - 11)							
Male							
Sample Number	12	66		1		6	85
Percent	8.0	44.0		0.7		4.0	56.7
Std. Error	2.2	4.1		0.7		1.6	4.1
Number	642	3,529		53		321	4,545
Female							
Sample Number	2	60				3	65
Percent	1.3	40.0				2.0	43.3
Std. Error	0.9	4.0				1.1	4.1
Number	107	3,208				160	3,475
Sexes Combined							
Sample Number	14	126		1		9	150
Percent	9.3	84.0		0.7		6.0	100.0
Std. Error	2.4	3.0		0.7		1.9	
Number	749	6,737		53		481	8,020
<hr/>							

-Continued-

Appendix Table 8. Age composition of the Chilkoote Lake escapement, by statistical week and sex, 1984 (continued).

		Brood Year and Age Class					Total
		1980	1979		1978		
		1.2	1.3	2.2	1.4	2.3	
Statistical Week 33 (August 12 - 18)							
Male							
Sample Number	2	41		2	6	51	
Percent	2.5	50.6		2.5	7.4	63.0	
Std. Error	1.7	5.6		1.7	2.9	5.4	
Number	136	2,794		137	409	3,476	
Female							
Sample Number	3	23		1	3	30	
Percent	3.7	28.4		1.2	3.7	37.0	
Std. Error	2.1	5.0		1.2	2.1	5.4	
Number	205	1,568		68	205	2,046	
Sexes Combined							
Sample Number	5	64		3	9	81	
Percent	6.2	79.0		3.7	11.1	100.0	
Std. Error	2.7	4.6		2.1	3.5	5.5	
Number	341	4,362		205	614	5,522	
Statistical Week 34 (August 19 - 25)							
Male							
Sample Number	1	21		1	8	31	
Percent	1.3	26.2		1.3	10.0	38.8	
Std. Error	1.3	5.0		1.3	3.4	5.5	
Number	139	2,936		140	1,118	4,333	
Female							
Sample Number	2	44		1	2	49	
Percent	2.5	55.0		1.3	2.5	61.3	
Std. Error	1.8	5.6		1.3	1.8	5.5	
Number	280	6,152		140	280	6,852	
Sexes Combined							
Sample Number	3	65		2	10	80	
Percent	3.8	81.2		2.5	12.5	100.0	
Std. Error	1.1	4.4		1.3	3.7	5.5	
Number	419	9,088		280	1,398	11,185	
Statistical Week 35 (August 26 - Sept. 1)							
Male							
Sample Number	1	30			2	33	
Percent	1.2	35.2			2.4	38.8	
Std. Error	1.2	5.2			1.7	5.3	
Number	41	1,212			81	1,334	
Female							
Sample Number	1	43	1		7	52	
Percent	1.2	50.6	1.2		8.2	61.2	
Std. Error	1.0	5.5	1.2		3.0	5.3	
Number	40	1,738	40		283	2,101	
Sexes Combined							
Sample Number	2	73	1		9	85	
Percent	2.4	85.8	1.2		10.6	100.0	
Std. Error	1.7	3.8	1.2		3.4	5.5	
Number	81	2,950	40		364	3,435	
Statistical Week 36 (Sept. 2 - 8)							
Male							
Sample Number	3	16	1	1	2	23	
Percent	4.8	25.9	1.6	1.6	3.2	37.1	
Std. Error	2.7	5.6	1.6	1.6	2.3	6.2	
Number	216	1,155	72	72	145	1,660	
Female							
Sample Number		29		1	9	39	
Percent		46.8		1.6	14.5	62.9	
Std. Error		6.4		1.6	4.5	6.2	
Number		2,093		72	649	2,814	
Sexes Combined							
Sample Number	3	45	1	2	11	62	
Percent	4.8	72.7	1.6	3.2	17.7	100.0	
Std. Error	2.7	5.7	1.6	2.3	4.9	6.2	
Number	216	3,248	72	144	794	4,474	
Statistical Week 37 (Sept. 9 - 12)							
Male							
Sample Number	1	6			6	13	
Percent	3.8	23.1			23.1	50.0	
Std. Error	3.8	8.4			8.4	10.0	
Number	111	667			668	1,446	
Female							
Sample Number		11			2	13	
Percent		42.3			7.7	50.0	
Std. Error		9.9			5.3	10.0	
Number		1,223			222	1,445	
Sexes Combined							
Sample Number	1	17			8	26	
Percent	3.8	65.4			30.8	100.0	
Std. Error	3.8	9.5			9.2	10.0	
Number	111	1,890			890	2,891	
Combined Periods (Percentages are weighted by period escapements)							
Male							
Sample Number	73	850	5	9	77	1,014	
Percent	3.9	42.3	0.2	0.6	4.9	51.9	
Std. Error	0.5	1.2	0.1	0.2	0.6	1.2	
Number	3,853	42,541	256	580	4,900	52,131	
Female							
Sample Number	13	799	2	6	68	898	
Percent	0.8	43.2	0.1	0.4	3.6	48.1	
Std. Error	0.3	1.2	0.1	0.2	0.5	1.2	
Number	851	43,353	88	397	3,598	48,286	
Sexes Combined							
Sample Number	86	1,649	7	15	145	1,902	
Percent	4.7	85.5	0.3	1.0	8.5	100.0	
Std. Error	0.5	0.9	0.1	0.3	0.7	1.2	
Number	4,704	85,894	344	977	8,498	100,417	
Mean Escapement Date							
Standard Error (Days)	7/30	7/23	8/6	8/5	8/3	7/24	
	19.7	24.6	22.3	26.1	28.3	25.0	

Appendix Table 9. Cumulative weekly proportions of Chilkat catches of sockeye salmon, by age and statistical week, 1984.

Statistical Week	Inclusive Dates	Age Class										Total
		0.2	0.3	1.2	1.3	2.2	1.4	2.3	3.2	2.4	3.3	
25	6/17-6/23	0.000	0.082	0.000	0.043	0.001	0.000	0.013	0.000	0.000	0.000	0.025
26	6/24-6/30	0.000	0.201	0.000	0.135	0.003	0.000	0.046	0.000	0.000	0.000	0.078
27	7/01-7/07	0.000	0.314	0.091	0.237	0.006	0.000	0.089	0.000	0.000	0.000	0.139
28	7/08-7/14	0.000	0.403	0.179	0.327	0.011	0.000	0.116	0.000	0.000	0.000	0.189
29	7/15-7/21	0.000	0.474	0.315	0.484	0.022	0.000	0.188	0.000	0.000	0.000	0.280
30	7/22-7/28	0.000	0.604	0.561	0.622	0.043	1.000	0.240	0.000	1.000	0.000	0.365
31	7/29-8/04	0.000	0.766	0.649	0.707	0.132	1.000	0.321	0.000	1.000	0.000	0.453
32	8/05-8/11	0.000	0.890	0.960	0.807	0.291	1.000	0.443	0.000	1.000	0.000	0.576
33	8/12-8/18	0.000	0.946	0.960	0.911	0.656	1.000	0.592	0.000	1.000	0.911	0.758
34	8/19-8/25	0.000	0.963	0.960	0.943	0.769	1.000	0.661	0.511	1.000	0.911	0.821
35	8/26-9/01	1.000	0.989	0.993	0.972	0.856	1.000	0.765	0.915	1.000	0.911	0.886
36	9/02-9/08	1.000	1.000	0.993	0.988	0.915	1.000	0.859	0.915	1.000	0.911	0.934
37	9/09-9/15	1.000	1.000	1.000	0.996	0.959	1.000	0.947	1.000	1.000	1.000	0.973
38-42	9/16-10/16	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Because the Alaska Department of Fish and Game receives federal funding, all of its public programs and activities are operated free from discrimination on the basis of race, color, national origin, age, or handicap. Any person who believes he or she has been discriminated against should write to:

O.E.O.
U.S. Department of the Interior
Washington, D.C. 20240